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DISTRIBUTION OF TAX PAYMENTS BY INCOME GROUPS: A CASE STUDY FOR 1948 *

R. A. MUSGRAVE, J. J. CARROLL, L. D. COOK, AND L. FRANE

I. THE MEANING OF INCIDENCE

THE SEARCH for quantitative estimates of tax incidence leads the explorer through a wasteland of muddled concepts, inadequate theory, and lack of data. Nevertheless, the question who pays the taxes must be answered if taxes are to be raised in accordance with the public's ideas of distributional justice and the maintenance of sound economic conditions. Although available evidence is discouragingly scarce, the economist cannot plead complete absence of information. There is some empirical evidence to work with, and some conclusions may be reached deductively. Moreover, the economist can be useful in making explicit the assumptions underlying a particular conclusion. His informed judgment, to say the least, should prove a better basis of policy than random guesses or political slogans. Thus there is no need to apologize for the tentative nature of our results.

In section I the conceptual difficulties and limitations underlying a study of

* This study is a product of a seminar in public finance at the University of Michigan, conducted during the fall term of 1949 under the direction of Professors R. S. Ford and R. A. Musgrave. Members of the seminar who contributed to the study were J. J. Carroll, L. D. Cook, L. Frane, H. Frisinger, H. S. Gordman, C. T. Hardwick, J. Hurwitz, H. Jaroche, and J. W. Reher.

The revision, expansion, and assembling of the work was undertaken by the present authors, who alone should be blamed for its shortcomings.

More than on any other source, this study draws upon the findings of the Survey of Consumer Finances, prepared by the Survey Research Center of the University of Michigan in conjunction with the Board of Governors of the Federal Reserve System.

Our thanks are due to members of the staff of the Survey Research Center, especially George Katona and Kent Winter, for their help in supplying and interpreting much of the underlying data. Also, we are indebted to the Executive Board of the Horace H. Rackham School of Graduate Studies of the University of Michigan for a grant from the Faculty Research Fund.

EDITOR'S NOTE: *Because of the importance of this subject and the convenience to users of having the whole study published in a single issue, we have departed from customary restrictions on length of articles. A limited number of reprints are available from Secretary of National Tax Association, P. O. Box 1799, Sacramento 8, California, at a price of 50 cents each (45 cents each for 20 or more).*

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tax incidence are given brief consideration. In section II sources of data, assumptions, and our procedures with regard to particular taxes are reviewed. In section III we examine the results for the "standard case," based upon what appears to us the most likely set of assumptions. In section IV the significance of alternative assumptions is explored, and our results are compared with those of earlier studies. Some of the underlying data are explained further in the appendix.

This study, like other attempts at quantitative estimation of tax incidence, inevitably involves the use of grossly simplifying assumptions. Nevertheless, it is important to consider first how the measurement of incidence should be formulated *if* all empirical difficulties could be overcome. Unless we are clear as to what it is we wish to measure, we are in no position to appraise the merits or shortcomings of our statistical results. The impatient reader may want to skip the somewhat theoretical discussion presented in the initial section; but if he does he should be warned that "incidence" is an ambiguous and far from self-explanatory term.

1. *Taxation and Surrender of Resources*

Let us start out from an economy in which there is no public budget. Certain public services are now to be introduced. For this purpose, resources previously employed to meet private demand must be transferred to public use. The government may resort to two methods of doing this: It may conscript or, as done usually, it may go into the market and purchase. If the resources or products are to be purchased, various means of finance are available. Finance by fees or special assessments is feasible for only a small part of public services. The bulk of public services must be tax- or loan-financed. Consider the case of tax finance. The government must raise a tax yield equal to the purchase price of the required resources or products.[1] To simplify, let us suppose that the economy is limited to two factors of production, *a* and *b*, and to two taxpayers, X and Y. Also, let us assume that X is primarily a consumer of *a* and Y primarily a consumer of *b*. Suppose now that the government is in need of *a*. It is evident that this resource must be surrendered largely by X, but it does not follow that X rather than Y must bear the major burden. Let us suppose that the government wishes to impose the major burden upon Y. The revenue may then be obtained from an income tax on Y, whose demand for *b* will decline as a result. X will find that the price of *a* has risen because of additional public demand for it, while that of *b* has fallen because of the shrinkage of Y's demand. Accordingly, he will substitute *b* for *a* in his consumption pattern. Thus he will recoup from Y in the form of *b* most of what he has surrendered to the government in the form of *a*.

As is apparent from this illustration, the party surrendering the resources required for public use need not be the party bearing the major part of the cost of the public service. It follows that the formulation of tax policy involves an inevitable decision as to whose income should be cut. Considerations of income distribution are the heart of tax policy.

2. *Nature of Tax Burden*

Suppose now that it has been decided

[1] We are here concerned with exhaustive or real expenditures only. Transfer payments, throughout this discussion, should be thought of as negative taxes.

how much various members of the community *should* contribute to the given yield total. There remains the question how this desired distribution can be implemented or how the cost of public services *will* in fact be distributed under any given revenue structure. This, broadly speaking, is the problem of incidence. But before considering how the distribution of this cost or burden can be determined, let us examine more closely how the burden concept is to be defined.

It is evident that the term "burden of taxation" applies to only one side of the revenue-expenditure process. Whether a particular revenue-expenditure combination results in an ultimate *net* gain or loss to the community depends upon the balance between the gains incident to the public use of resources and the losses incident to their withdrawal from private use. The concept of burden, as here used, refers only to the losses incident to the withdrawal of resources. Therefore, it does not imply the existence of a social burden, which results only where additions to the revenue-expenditure total result in a net loss on balance.

Let us begin with the concept of money burden. Given the level of income before tax, every tax dollar collected by the government will reduce someone's income after tax by a similar amount. This is evident as regards personal taxes because they are simply deducted from income before tax to obtain income after tax. The case is a little more difficult for taxes paid by consumers in the form of higher prices. To simplify matters, we shall translate such taxes into personal taxes and define a person's income net of tax to equal his money income received, minus his personal taxes paid, and minus indirect taxes imputed to him.

We may then say that the money burden of prevailing taxes upon any particular taxpayer equals the difference between his actual money income net of tax and the money income which he would receive in the absence of taxes. And if we assume money income before tax to be the same with and without taxes, it follows that the aggregate money burden carried by taxpayers as a group is equal to the tax yield.[2] But if income before tax differs in the two cases, the total money burden will exceed or fall short of the tax yield.

Money burden thus defined is the basic concept of this study, but it has serious shortcomings. It may, for various reasons, be a poor measure of the welfare loss involved, and the measurement of welfare loss, after all, is the *raison d'être* for the development of any burden concept. Discrepancies between "money burden" and "true burden" may arise for several reasons. Two situations may involve the same total money burden; yet the true burden may differ, depending on the distribution of the money burden among members of the community. Or, as between two situations involving similar distributions of an equal money burden, the total true burden may differ depending upon what taxes (e.g. personal taxes or excises) are used. For similar reasons, the distribution of the true burden among members of the community may differ from the distribution of the money burden. Some individuals may, in fact, be subject to no money

[2] The reader will note that it is absurd to assume income to be unchanged by tax repeal, if, at the same time, public expenditures are held constant. See below.

burden, yet carry a share of the true burden. Consider, for instance, taxpayer X in the above illustration. Suppose that the price increase in commodity *a* is matched by a proportionate decrease in the price of *b*. In this case X will suffer no money burden; but if he prefers *a* over *b*, his economic position will be worsened nevertheless.

For purposes of this study, we shall disregard these rather elusive issues and consider only changes in welfare as reflected in corresponding changes in money income. This omits interesting issues but reduces the problem to measurable form. *The burden of taxation applicable to any particular taxpayer, accordingly, is defined as the difference between his actual money income net of tax and what this income would be in the absence of the tax.* This difference, we repeat, is defined to include differences in money income before tax, differences in personal taxes paid, and differences in excise tax payments imputable to the particular taxpayer.

3. *Impact and Adjustment to Tax Changes*

In determining the distribution of this money burden, two extreme approximations suggest themselves. One is that each tax dollar rests with whoever carries the statutory liability for its payment; the other is that, no matter where the initial payment is made, the tax liability will eventually be shared alike by all members of the community. Both propositions are untenable. The statutory taxpayer will attempt to recover part of his payments by adjusting the terms on which he trades in the market. Depending upon the type of tax and the market setting, he will be more or less successful in doing so. The truth, it appears, lies somewhere between the extremes of the impact and diffusion theories. We must try, as best we can, to determine where the burden of particular taxes lies.

As will be shown presently, it is impossible to determine the burden distribution for any particular tax system without reference to the burden distribution under an alternative system or without including the effects of the expenditure side of the public budget. But let us avoid this difficulty for the time being and consider the consequences of substituting a new tax structure for a prevailing structure of equal yield.

This change will disturb the prevailing equilibrium (or alter the prevailing disequilibrium) and call forth an extensive chain of adjustments throughout the economy. The chain of adjustments will extend much beyond the points of impact, where old taxes are removed and new taxes are imposed. The manufacturer who pays a new tax will raise his price to the wholesaler and the wholesaler to the retailer who, in turn, will raise the price charged to the consumer; consumers will shift to products the prices of which have risen less or have fallen; wages and profits will rise in industries facing increased demand and decline in industries facing reduced demand. These changes will bring about further adjustments in the budgets of wage and profit recipients and so forth. This succession of induced adjustments, radiating out and branching off in all directions, will continue until the economy has reached a new position of equilibrium.[3]

[3] The distinction between new and old taxes is clear-cut in a setting in which tax changes provide

In the course of this process the income positions of individuals will be affected in various ways. Changes in Mr. Jones' income due to direct changes in his tax payments are only one among many factors. This is frequently overlooked, as the shifting process, which is but a different term for the process of adjustment just described, is thought of in terms of a spreading network of income losses, coming to an end wherever any particular part of the tax burden stays put. Thus, a seller who is confronted with an additional excise yielding a total amount T raises his price but sells less.[4] Accordingly, he finds his profits reduced (suffers a loss) by an amount L_s. The consumer, in turn, finds the price increased. He reduces his purchase but suffers a remaining loss L_c equal to the increment in price times the new quantity bought. The workers in the taxed industry may find their wage receipts cut and suffer a loss L_w, and so forth. If we interpret the conventional concept correctly, the total money burden T is thought of as the sum of these losses, while its distribution is taken to be split according to the amounts L_s, L_c, and L_w. But this is not correct.

The sum of $L_s + L_c + L_w$ will equal T only under quite exceptional conditions. Obviously, there will be no such equality in the general case, where the income before tax is changed in the process. But even if income before tax is assumed constant, the sum of losses will typically exceed T, since taxpayers will incur losses while avoiding tax payment. Thus the producer, who is saddled with an excise, will raise his price to curtail the burden; but even though the tax, as reflected in the price rise, is imputed to the consumer, the producer is still likely to suffer a decline in profits. At the same time, the very shift in demand which leads to a decline of profits and wages in the taxed industry, also leads to a corresponding increase in profits and wages somewhere else. The tax adjustment produces a series of gains as well as losses.[5] Denoting all such gains with G, we have

$$T = L_s + L_c + L_w - G.$$

If income before tax is unchanged, the excess of income losses over tax yield will be offset by gains in another part of the system.

4. *Incidence and Effects*

The difference in the distribution of the money burden under the new and the old revenue structures may now be determined by comparing the initial equilibrium with that which prevails after adjustment to the new tax system is completed. Unless total income before tax has changed, total income net of tax will be the same in both cases. The distribution of income, however, will differ. This change in distribution, as determined by comparing the two

the only disequilibrating factor. In a dynamic economy, which is continuously in a process of change, the distinction between old and new taxes is blurred; even old taxes remain part of the economic map and hence a factor in the continuous process of adjustment.

[4] To facilitate presentation, the argument in this and the following paragraph is in terms of a particular tax, and hence absolute incidence, rather than in terms of a comparison between two taxes. However, the same line of reasoning applies with regard to differential incidence.

[5] Other gains might result as well. Thus X might benefit from a decline in the price of *b*, brought about by the decline in Y's demand due to an increase in Y's income tax. In order to allow for this type of gain or loss, the above definition of change in income net of tax must be amended to allow for *all* changes in the prices of consumer goods bought, not only for price changes of commodities which have been directly subject to an excise change.

equilibria, will reflect all the previously mentioned gains and losses brought about in the course of the adjustment process. A comparison of the two equilibria does not permit us to single out any particular chain or link in the adjustment process and to determine its result separate from that of the remaining adjustments. Yet, this is precisely what most authors, employing the time-honored distinction between "incidence" and "effects" attempt to do.[6]

This separation, usually appears to aim at a distinction between changes in income brought about "directly" by tax payments (i.e., changes in personal and excise taxes imputed to the particular individual) and changes in income brought about by other phases of the adjustment process (e.g., changes in income before tax or changes in the prices of products bought, which do not directly reflect indirect tax payments). As far as we can see, such a separation serves no analytical purpose. For the taxpayer as well as the government, what counts is how income positions are changed *on balance* by the *entire* tax adjustment. A decline in a taxpayer's wages, brought about by reduced demand for his services is no less painful than a decline in his wages brought about by an increase in his personal tax. Both changes are part of the same equilibrating process and can be determined only simultaneously.

If there is any meaningful way in which the end result of the tax adjustment may be divided, it appears to be between changes in the *level* of income before tax and changes in the *distribution* of income net of tax. Both are important outcomes of the same tax adjustment, but they may be usefully distinguished and be measured separately. This distinction, perhaps, contains the kernel of usefulness in the dichotomy between "incidence" and "effects." *Resulting changes in the level of income may be referred to as "effects," while resulting changes in distribution may be referred to as "incidence" of taxation.* But if such a distinction is made, it must not be forgotten that both parts are the result of the same adjustment process and that both encompass all links and chains in this process; the distinction merely applies to different features of the end result.[7]

5. *Absolute vs. Differential Incidence*

The reader may wonder why, after having defined the concept of burden in section 2 in terms of *absolute* money burden, we conducted the discussion in section 3 in terms of changes in the distribution of the money burden which results when one tax system is substituted for another. Would it not have been simpler to compare income net of tax under the given tax structure with income net of tax in the absence of taxes and thus determine the absolute burden distribution of the given tax structure?

Unfortunately, this cannot be done, for the simple reason that taxes are the counterpart of public expenditures.[8]

[6] Compare, for instance, E. R. A. Seligman, *The Shifting and Incidence of Taxation*, p. 14, and Otto v. Mering, *The Shifting and Incidence of Taxation*, p. 3. For a healthy skepticism regarding the difference between incidence and effects, see, however, Cannan, Edgeworth, and Black, as noted in D. Black, *The Incidence of Income Taxes*, p. 123.

[7] In addition to effects on distribution of income and level of employment, one might distinguish further effects, such as effects on capital formation or the rate of growth, which are also separately measurable.

[8] Note that we start with a situation in which government expenditures *are* tax financed. Suppose now that we start with a situation in which in order

In a situation where, to begin with, we have public expenditures as well as taxes, we cannot "think the existing taxes away"—to borrow Wicksell's terms—without either (a) thinking public expenditures away as well, or (b) substituting some alternative means of finance.[9]

(*a*) If we choose the first approach, we aim at determining the *combined incidence of taxation and public expenditures.* That is, we compare the situation under the prevailing budget with a hypothetical situation in which there are neither taxes nor public expenditures. If the problem is formulated in this way, two aspects of expenditure incidence need to be distinguished. First, we must account for changes in the income position of individuals which are brought about by the expenditure side of the budget; second, we must account for the benefits derived from public services which are enjoyed free of charge.

The first problem offers no conceptual difficulty. Changes in money income due to public expenditures may be in the form of direct income subsidies through transfer expenditures; or they may take the form of changes in factor income due to changes in the over-all pattern of demand. By comparing the distribution of income in the pre- and post-budget economies, such gains and losses are determined together with those stemming from the tax side of the budget. If money income before tax is the same in both situations, the gains and losses thus determined for the combined tax-expenditure process will show a burden (decline in income net of tax) equal to the amount of tax yield or expenditure.[10] The component changes in individual income positions will show how the total money burden, incident to the withdrawal of resources from private use, is distributed. But note that the result thus obtained is one of *budget incidence,* not of tax incidence. We cannot obtain two separate and additive results relating to the tax and expenditure sides respectively.

The second aspect of the expenditure problem is more difficult to handle. Unless one is willing to follow Adam Smith's rule of thumb that "benefits received are proportional to income received under the protection of the state," there is no simple way in which the benefits from general public services may be imputed to particular members of the community. And without this, we do not have a complete picture of the distributional effects of the public budget. But even though this com-

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to maintain full employment expenditures are credit financed. We have two lines of reasoning.

One is to argue that, in the absence of public expenditures, there would be unemployment of resources; hence the public employment of resources involves no opportunity cost in alternative private use. While there is some validity to this line of thinking, it is rather unsatisfactory: in a rationally conducted economic system, the allocation of resources for any use, public or private, should always be on the assumption of full employment; policies aimed at maintaining full employment should (and can) be handled as such and so as to be neutral with regard to allocation.

The other line of reasoning is to argue that in the absence of the given expenditure program, the maintenance of full employment would have been secured by alternative expenditures, say transfer payments proportional to income. In this case the burden of public services might be obtained by comparing the actual situation with one of proportional transfer payments.

[9] See Knut Wicksell, *Finanztheoretische Untersuchungen und das Steuerwesen Schwedens* (Jena, 1896), p. 6 ff.

[10] This refers to goods and service expenditures. In the case of transfer payments there will be an offset of gains and losses and a zero burden.

plete picture may be impossible to obtain, we may at least derive an absolute measure of the distribution of money burden by combining the income changes which result from both the tax and expenditure side of the budget.

(*b*) While it is evident that a complete analysis of incidence must include both sides of the budget, it nonetheless remains of interest to consider the tax side as such. Except for certain minor cases of clear-cut benefit taxation, the two sides of the budget are the result of separate legislation and involve quite distinct issues. In expenditure determination, the objective is to render certain services and to do so efficiently; the distributive effects of public demand for resources are secondary. In tax determination, the distribution of the money burden is of primary importance. But, if we wish to study the incidence of taxation as such, it must be recognized that this incidence cannot be thought of in absolute terms; an alternative means of finance must be substituted when the prevailing taxes are "thought away," and this means that the result will necessarily be in differential terms.

The concept of *differential incidence* is not necessarily one of differential *tax* incidence. Suppose, for instance, that bank credit is substituted for tax finance. If full employment would have prevailed in the case of tax finance, inflation is bound to result. The comparison, then, will be between the burden distributions for inflation and for tax finance. This, to be sure, is not a particularly useful comparison. A more useful approach to differential incidence is to follow the procedure applied in section 3 above and to compare the incidence of the prevailing tax structure with that of an alternative tax structure. In this case, the comparison is between the prevailing equilibrium and that which would result if the new tax structure were substituted.

While this permits a comparison of incidence under any two tax structures, a more general measure permitting comparison between more than two tax structures might be desirable. For this purpose, each of the given tax structures might be compared with some easily definable reference case, say a tax structure in which tax payments are proportional to income before tax. Whatever is done, it appears that a meaningful concept of incidence must either be formulated in differential terms (in which case public expenditures and their incidence may be held constant) or it must be a combined measure of tax and expenditure incidence.

6. *Empirical Difficulties*

We now proceed to a quite different level of argument and consider the empirical difficulties which prevent statistical implementation of a conceptually proper estimate of tax incidence. The limitations are appalling. Economists can rarely experiment. They cannot switch tax systems or repeal the budget; and even if they could, they would be unable to "hold other things constant" while equilibrating adjustments took place. Thus our reasoning is largely deductive. Occasionally a major deductive conclusion may be buttressed by empirical observation of the adjustments that result from a minor change in the tax structure. Beyond this, empirical studies of tax shifting are nonexistent. In view of these limitations, let us now consider how the issues

raised in the preceding pages are handled in this study.

(*a*) We do not attempt to trace incidence by individual taxpayers but limit ourselves to a study of incidence by spending unit income groups.

(*b*) We do not adopt a general impact or diffusion theory, but attempt —in light of accepted theories of market behavior—to make reasonable *assumptions* regarding the point in the income-expenditure stream from which the tax is drawn. By applying these assumptions to our data, we attempt to estimate the final money burden for each tax by spending unit income brackets. The deductive reasoning underlying certain important assumptions, especially those relating to the shifting of the corporation tax, is by no means conclusive; in such cases alternative assumptions are formulated and the results compared.

(*c*) In considering the equilibrating adjustment to any given tax change, it is not feasible to trace out the entire pattern of gains and losses. We must be content to record only items of loss associated directly with the sale (or purchase) of the taxed commodity or service. Items of loss incurred in adjustment to the tax, such as reduced profits due to reduced output, are not accounted for, and gains and losses occurring elsewhere in the system are wholly neglected. For example, the rule of thumb is used that an excise tax should be imputed to consumers in the same proportion in which they consume the taxed commodity. Changes in business profits or in returns to factors *before* tax are disregarded, as are consumer gains and losses that result from changes in the relative prices of taxed and nontaxed commodities.

From the preceding discussion, it is evident that such simplifications can be defended only because they are essential in order to reduce the problem to empirically manageable terms. They cannot be defended by arguing that the resulting concept of money burden is endowed with analytical significance which it does not possess. There is a question of how seriously these oversimplifications affect the quantitative results. Undoubtedly the resulting distortions would be serious if we were to measure the incidence of the tax system with respect to each individual taxpayer; the factors here omitted may well be decisive for changes in the income position of any one person. Since we are concerned with the distribution of the money burden by income brackets only, the distortion will be less serious. We may presume that a transfer of profits from one seller to another or an inter-industry change in wages will be distributed more or less in line with the existing income distribution; and the same may be expected to hold for consumer gains and losses from a change in the prices of commodities not taxed. Restated in these terms, the diffusion principle has some merit.

(*d*) This study does not take into account the expenditure side of the budget but deals only with the distribution of the tax burden; and, as shown in the preceding discussion, this concept can be formulated meaningfully only in terms of differential incidence.

Yet, the results of this study, as presented in subsections 1-4 of section III, trace the absolute tax yield under the given revenue structure to its resting place by income brackets. This provides us with the type of data presented in earlier incidence studies; but it ap-

pears to record incidence in absolute terms, which, according to our preceding discussion, is not meaningful. Rather, the incidence of the given tax structure must be measured in terms of its difference from an alternative structure. For a reference case we may consider a hypothetical structure which provides for a proportional distribution of the money burden. In subsection 5 of section III an attempt is made to provide such a measure of differential incidence.

Admittedly this is little more than a gesture of respect to our conceptual discussion. The distribution of tax payments for the proportional system case is arrived at by proportionately allocating the given yield total on the basis of the same distribution of income *before* tax existing under the impact of the given 1948 tax structure. That is to say, we disregard the fact that the basic distribution of income before tax would have differed had a proportional tax system been applied. Again, this is a procedure which can be defended only on grounds of empirical limitations.

(*e*) The study, finally, makes no allowance for possible changes in the level of money (and real) income which may result from the tax adjustment. In the terminology of incidence and effects suggested above, the implicit assumption is that the entire result of the tax adjustment is measurable in terms of incidence, effects being zero. If we consider our results in terms of differential incidence, this involves the additional assumption that the *level* of income before tax (as well as its distribution) would be the same under both tax structures.

(*f*) To this list of shortcomings others must be added which arise from faulty assumptions or deficient data. These will be considered in detail in the following section. At this point, the reader may despair of the usefulness of undertaking a quantitative study of this kind. Certainly, a healthy skepticism is in order. It should not, however, be carried too far. We must remember that distributional considerations *are* of major importance in the determination of tax policy. Legislators must choose between alternative taxes, and it is better that they be provided with part of the answers than with none. And, where empirical evidence cannot be obtained, it is important at least that assumptions be made explicit and be acceptable on deductive grounds.

II. SOURCES, METHODS, AND ASSUMPTIONS

In this section we present a brief summary of the methods by which our distribution of tax payments has been derived. No detailed calculations are presented, but we lay our cards on the table and give the reader an opportunity to familiarize himself with the underlying data, procedures, and assumptions. Only thus will he be in a position properly to appraise the reliability of our results.

1. *Basic Data: Distribution of Income*

Calendar year 1948 was chosen for this study as the latest period for which data were available. The first step was to obtain a distribution of income by income brackets to which tax payments might be allocated. The distribution of income by spending units, appearing in the "1949 Survey of Consumer Finances," was most appropriate for our purpose. Prepared by the Survey Research Center of the University of

Michigan for the Board of Governors of the Federal Reserve System, this distribution accounts for 50.4 million spending units and a total money income of $176 billion. This income is distributed among seven income brackets, ranging from "under $1,000" to "over $7,500." The basic distribution is shown in line (1) of Table 1.

The income total of $176 billion falls short of the Department of Commerce estimate of personal income for 1948 by nearly $36 billion. More than half of this amount may be accounted for by conceptual differences, the remainder being due to statistical discrepancies.[1] Since the level of income here used is lower, the tax to income ratios or effective tax rates are higher than they would be had we used the larger income base. We decided to use the S.R.C. income total because the entire study is based upon the S.R.C. distribution of income, the distribution of the difference between the two income

TABLE 1

BASIC DISTRIBUTIONS FOR TAX ALLOCATION

(In per cent)

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
(1) Money income	2.0	7.6	16.1	19.5	14.5	17.3	23.0	100.0
Consumer expenditures:								
(2) Total	3.9	9.3	18.1	20.7	14.4	16.1	17.5	100.0
(3) Durables	2.2	5.6	18.2	20.0	15.8	17.0	21.2	100.0
House expenditures:								
(4) Owners	2.7	8.8	16.9	21.2	13.9	15.0	21.5	100.0
(5) Renters	3.2	13.6	24.0	22.2	13.7	14.5	8.7	100.0
(6) Liquid asset holdings	4.0	7.0	14.0	14.0	11.0	18.0	32.0	100.0
Consumer expenditures:								
(7) Tobacco	3.9	11.4	21.1	22.9	14.3	14.1	12.2	100.0
(8) Auto transport	3.4	6.0	12.1	20.1	16.5	18.8	23.1	100.0
(9) Other transport	1.0	10.1	20.5	23.3	13.3	16.5	15.3	100.0
(10) Recreation	1.8	5.0	13.4	20.0	15.1	20.5	24.1	100.0
(11) Food	4.1	11.4	20.5	21.8	14.2	14.6	13.3	100.0
(12) Alcoholic beverages	.9	8.9	17.2	22.5	12.7	16.4	21.4	100.0
(13) Housing	4.1	9.6	18.4	22.1	14.7	14.5	16.6	100.0
(14) All other	4.2	8.7	17.6	19.2	14.2	16.8	19.4	100.0
(15) Dividends	1.1	2.3	3.4	4.3	3.7	7.3	77.9	100.0
(16) Wage and salary income	2.5	9.2	19.5	23.6	17.5	16.0	11.7	100.0
(17) Wages covered by p.r. tax	1.1	8.7	23.7	30.6	20.2	12.8	2.9	100.0
(18) Rental income	4.7	8.0	9.9	11.5	8.5	12.2	45.0	100.0

Note: Details do not necessarily add to totals because of rounding.

Source: Items (1) to (6) were obtained from data of Survey Research Center, University of Michigan. Items (7) to (14) were estimated on basis of B.L.S. data. Items (15) to (18) were estimated on basis of various other sources. For details see appendix.

[1] S.R.C. income data do not include an estimated $13.0 billion of income in kind and imputed income or an estimated $7.0 billion of income to institutional and transient population. This leaves an unexplained difference of $15.9 billion. To have used the personal income figure of the Department of Commerce, and to have distributed it by income groups according to the S.R.C. income distribution, would have meant making the unwarranted assumption that the $36 billion difference was distributed in the same manner as the S.R.C. income. In view of the nature of the major items that account for the difference, there is no reason to assume this.

totals being unknown. Moreover, the underlying income total is relatively unimportant for our purpose, which is primarily to estimate the *distribution* of tax payments. Whereas the general level of "effective tax rates" (i.e., taxes contributed as a percentage of income received) shown in section III depends upon the income total used, the distribution of the tax bill does not. However, in comparing our results with those of other studies, an adjustment to the Department of Commerce level of income will be made.

The S.R.C. distribution provides no breakdown of income above $7,500. Nor is it possible to obtain consumption data for income brackets above this level. Hence no attempt is made to determine the allocation of tax payments among income groups above $7,500. While a further allocation of tax payments among the higher income groups would be of considerable interest, there are no adequate data on which to base such estimates. Also, it is evident that tax policy in a high-taxation economy, such as lies ahead, will be concerned increasingly with the middle and lower level income range here studied.

2. *Basic Data: Distribution of Expenditures*

In order to allocate the yield from excise taxes and such fraction of other taxes as is assumed to be shifted forward to consumers, it was necessary to obtain a distribution of consumer expenditures by income brackets. This information was obtained from two sources.

A distribution of total consumer expenditures was derived as a residual from S.R.C. data providing distributions of income, income tax liability, and savings. The resulting distribution for total consumer expenditures is shown in line (2) of Table 1. Most excise taxes and the forward-shifted parts of some other taxes, however, do not apply to consumer expenditures in general but to specific expenditure items. Expenditures on specific items, in many instances, are distributed in a quite different way than are total expenditures. In order to allocate excises as much as possible in accordance with the distribution of specific types of consumption expenditures, a more detailed pattern of consumer expenditures was needed. The S.R.C. data provide such distributions for consumer durables as well as for housing expenditures of house owners and renters. They are shown in lines (3), (4), and (5) of Table 1.

Expenditure distributions for a number of further items were derived from a series of consumer budget studies conducted by the U. S. Department of Labor from 1946 through 1948. These data, which cover a number of selected cities only, had to be reworked to present a national picture. Also, they had to be assembled into a breakdown of items most useful for the purpose of tax allocation. The results of this rather involved and unsatisfactory procedure are shown in lines (7) to (14) of Table 1.

3. *Basic Data: Revenue Sources and Yield Total*

Total tax revenue collected in 1948 by all levels of government amounted to $57.3 billion. A breakdown of this total between levels of government and among revenue sources is shown in Table 2.

TABLE 2

TAX COLLECTIONS IN 1948

(In millions of dollars)

	Tax	Collections
	Federal	
(1)	Personal income tax	18,045
(2)	Corporation income tax	12,920
(3)	**Excises and customs, total**	**7,912**
(4)	Alcohol	2,177
(5)	Tobacco	1,312
(6)	Automotive	1,279
(7)	Amusement	640
(8)	Transportation	610
(9)	Communication	512
(10)	Luxury	463
(11)	Electrical	265
(12)	Food	115
(13)	Other excises	129
(14)	Customs	410
(15)	Estate and gift	900
(16)	Payroll	4,015
(17)	Total	43,794
	State and Local	
(18)	Personal income tax	499
(19)	Corporation income tax	699
(20)	**Excises, total**	**6,093**
(21)	Automotive	1,989
(22)	General sales	1,899
(23)	Alcohol	545
(24)	Tobacco	365
(25)	Insurance	202
(26)	Amusement	184
(27)	Public utility	267
(28)	Other excises	642
(29)	Property taxes	6,064
(30)	Inheritance taxes	197
(31)	Total	13,552
(32)	Grand total, all levels	57,344

Sources: Lines (1), (2), (14), (19), (29), and (30) from *Survey of Current Business*, July, 1949, Table 8. Lines (3) through (13) from Bureau of Internal Revenue, Release 7, February 23, 1949. Line (16), *Survey of Current Business*, July, 1949, Tables 34 and 35, and Social Security Agency, *Annual Report* (adjusted to calendar-year basis). Line (18), *State Finances, 1949*, U. S. Bureau of the Census, August, 1949. Lines (20) through (28), U. S. Bureau of the Census, *State Tax Collections in 1949* (G-SF49, No. 4, August, 1949); fiscal year figures converted to calendar-year basis by averaging fiscal 1948 and 1949. No serious distortion is involved in this averaging, since the change during the period was less than 7 per cent.

4. *Tax Allocation: Personal Income Tax*

In prior studies one of the most serious difficulties arose in the allocation of personal income tax payments by family or spending unit income brackets. A distribution of income tax payments by brackets of taxable income may be readily obtained from the Treasury's *Statistics of Income*, but there is no simple way of moving from a distribution of this type to a distribution by family or spending units. Income splitting and other tax adjustments result in quite different patterns for the two distributions. Fortunately the need for constructing a bridge between the two has been obviated by the S.R.C. data which provide us with a percentage distribution of Federal income tax liabilities of spending units by income brackets.[2]

A distribution of state and local income tax payments was not available from the S.R.C. data. As state income tax exemptions are considerably higher and rates less progressive, the Federal distribution could not be used in allocating the state taxes. While there are distinct differences among the income taxes of various states, it was not feasible to estimate separate distributions for each of the thirty-five state income tax laws. As an approximation, the distribution of the Wisconsin income tax yield by spending unit income brackets was estimated and this distribution was used to allocate the entire yield of state income taxes.

The resting place of the entire personal income tax is assumed to be with the individual upon whom the statutory liability is imposed. Following

[2] This distribution is shown in Table 7.

generally accepted practice, we apply an impact theory to the incidence of this tax. Yet, it is quite conceivable that income tax payments in some instances may result in a rise in income before tax. Reward for professional services, the supply of which may be adjusted in small increments and which are highly specialized, may be a case in point. Collective bargaining demands may be directed at take-home rather than gross pay. Business income declared under the personal income tax may be subject to the same shifting considerations as apply to the corporation tax. Nevertheless, we can be fairly certain that such adjustments are the exception rather than the rule. Moreover, it seems impossible to establish any working hypothesis as to how much might be passed on at various income ranges. In the absence of an alternative formula, it seemed best to retain the conventional assumption that the tax stays where it is imposed.

5. *Tax Allocation: Corporation Income Tax*

In determining the allocation of the corporation income tax yield a number of different problems arise. First, it must be decided whether the tax is shifted; if so, by how much and in what direction. Next it must be decided how to distribute the part of the tax which is assumed to fall on profits. Finally the shifted parts of the tax must be allocated.

Shifting Assumptions.—Economists with few exceptions have held that the corporation tax cannot be shifted. Under pure competition there are no profits and hence no tax is paid. Or, if profits arise from efficiency differentials between firms, no such profits are earned by the marginal firm. Since the price is set by the marginal firm which pays no tax, the tax cannot be reflected in a higher price. Under monopolistic conditions the firm which sets the price does pay a tax. But since a tax on profits does not alter the price at which profits are maximized, the seller will do best to remain at his prevailing (optimum) position and to absorb any tax imposed on profits.

This line of reasoning has been accepted consistently by the profession and has been objected to with equal consistency by the "practical man" who stoutly maintains that he does add his corporation tax to his price. Some reconciliation is provided by certain obvious exceptions to the academic rule. First, the tax base may not be pure profit in the economist's sense but may include wages of management, return for risk taking, interest on equity capital, and other nonrent incomes. To the extent that this is the case, the tax is a cost item and will be reflected in price. Second, imperfections in the tax law inevitably lead to differential burdens among various enterprises and industries. And where this is the case (i.e. the tax is not truly general), price adjustments must follow. Third, corporation management may not charge the highest price which the market will bear. This restraint may reflect an effort to maintain consumer good will or a notion that profits should not exceed a "fair" level (the modern version of the old concept of just price); or prices may be held down merely to appease anti-trust authorities.

The extent to which such adjustments are possible will depend on market conditions, but the widely held view that there will always be more

shifting in a seller's market is not as obvious as it appears.[3]

In addition to the situations described above where forward shifting is possible, there are situations in which backward shifting may occur. Consider for instance a situation where the spoils of profit exacted from the consumer are shared by the seller and a strong union. In this case wage demands depend upon profits net of tax, and a change in tax may well be reflected in a change in wages. In all these cases the theorist will readily admit that the imposition of a corporation income tax may lead to price or wage adjustments so that the no-shifting rule does not apply.

Some other lines of argument need concern us less. One is the practical man's contention that "the pricing process does not conform to economic theory." The businessman, we are told, will treat the tax as if it were a cost. That is, he will include the tax in his computation of average costs to which then is added a "customary" profit (net of tax) margin in order to obtain the price. What gives rise to the "custom" is, of course, the crux of the problem. Its existence either reflects the presence of voluntary restraint as noted above, or it must be that such a margin is a measure, however imperfect or lagging, of optimum profits. If the latter is true, the argument breaks down. The customary margin, sooner or later, will be adjusted to a change in market data so as to maximize profits. Sellers will find out, sooner or later, that adding the tax does not pay and the margin will be adjusted accordingly.

A final argument refers to shifting in the long run and is frequently combined with the no-shifting rule for the short run. While the tax is held to fall on profits in the first instance, it is suggested that this will result in a decline in capital formation. The decline in capital formation in turn will result in lower productivity and hence bear upon the standard of living of the entire community, including wage as well as profit recipients. Thus the resulting burden is distributed more broadly in the long run, even though the short-run incidence of the tax is on profits only.

In evaluating this argument, one would have to determine first whether the level of capital formation would be affected significantly by a corporation tax of the 1948 rate level, given the economic conditions which then prevailed. But let us suppose that capital formation does decline. It follows that the community's real income in the future will be lower than it otherwise would be. On the assumption that the lower level of capital formation will not be permitted to reduce the level of employment, a larger fraction of the economy's output will come to be consumer goods. This result is extremely difficult to appraise; we have no way by which to match the loss of real income due to lower productivity with such gains in satisfaction as might be derived from a higher level of immediate consumption. Welfare theory, as it now stands, does not permit us to define an optimum rate of capital formation in this sense.

Nor is it an easy matter to assess the

[3] To argue that there will be more shifting in a seller's market it must be shown that the tax has more bearing on price policy, not merely that it is easier to raise prices. The situation may be the reverse if the case for shifting is based on the "restrained use of monopoly power" argument.

distributional effects of the change toward a higher consumption economy. The productivity of labor will be less than it would have been had there been more capital formation. The productivity of capital will be higher than it would have been had the capital stock been larger. The lower productivity of labor is applied to the same labor supply as would have existed otherwise, whereas the higher productivity of capital is applied to a smaller capital stock. There may be a presumption that the profits share in national income will have increased as a result of these adjustments, but no firm conclusion can be drawn on *a priori* grounds. The results will depend upon the particular circumstances of the case. It seems that the long-run argument is rather inconclusive and that not much is lost by neglecting it in this study.

By and large, it may be concluded that the academic view remains essentially correct. But certain exceptions should be allowed for, especially under conditions of a seller's market such as prevailed in 1948. Since this is a controversial matter and the corporation tax is of great quantitative importance, the testing of a number of shifting hypotheses seemed desirable. Thus we may determine the extent to which the results depend upon any particular assumption, and the reader who disagrees with our judgment will be in a position to choose the assumptions best suited to his own appraisal of the problem.

Accordingly, the allocation of corporation tax payments by income groups was estimated on the basis of three shifting assumptions. First, it was assumed that one-third of the tax is shifted forward to consumers and one-eighth of the tax is shifted backward to the wage earners, the remainder falling on profits. This is considered the standard case. While these particular ratios are more or less arbitrary, a choice of what seemed the most likely set of assumptions had to be made. In addition, two limiting cases are considered. One involves the assumption that the entire tax is shifted forward to consumers and the other the assumption that the entire tax remains on profits. A third limiting case of complete backward shifting did not seem to warrant investigation; it is not sufficiently realistic, and the results would not differ greatly from those obtained with complete forward shifting.

Treatment of Retained Earnings.—Were it not for the problem of retained earnings, the part of the tax which is assumed to fall on profits could without further discussion be imputed to shareholders. The fact that corporations retain a substantial part of their profits complicates matters. It cannot be assumed that taxes falling on profits will be reflected entirely in reduced dividends; rather they must be spread between dividends and retained earnings. The part imputed to dividends may be traced to shareholders, but the allocation of the remainder requires closer consideration.

Two possibilities suggest themselves: We may either disregard the part of the tax which falls on retained earnings or we may impute it to the shareholders, along with the tax component which is taken to fall on dividends. The former procedure has the disadvantage that a considerable part of the total tax yield is not accounted for; the latter has the disadvantage of implying the rather unrealistic assumption that taxes paid

out of retained earnings are, in effect, taxes paid by shareholders. Since something may be said for either assumption, the corporation tax was allocated on both grounds. For purposes of the standard case the tax allocated to retained earnings was imputed to shareholders, so that the total yield may be accounted for.

Six Cases Distinguished.—Our two assumptions regarding the treatment of the tax on retained earnings may be combined now with the above three assumptions with regard to shifting. This gives us six distinct cases for the allocation of the corporation tax. The assumptions applicable to these cases are summarized in lines (6) to (9) of Table 3.

In all cases we begin with the data as reported for 1948 and shown in lines (1) to (5) of the table. Profits for the year amounted to $34.7 billion. Income taxes collected from corporations amounted to $13.6 billion, leaving profits net of tax of $21.1 billion. Of this, $7.9 billion was paid out in dividends and $13.2 billion was retained.

Following the shifting assumptions of Case A, $1.7 and $4.5 billion of the yield are imputed to wage earners and consumers respectively. The remainder, or $7.4 billion, is taken to fall on profits. Of this, $2.2 billion is assumed to be reflected in reduced dividends and $5.2 billion in reduced retentions; that is, in the absence of a corporation tax, distributions and retentions would have been correspondingly higher. Allocation between the two is based on observation of past movements of profits, dividends, and retained earnings which suggest that changes in profits will be apportioned among dividends and retained earnings on a 3 to 7 basis.[4]

Since the stockholders are thus debited with tax payments made for them by the corporation, they must be credited on the income side of their ledger with a corresponding amount. Thus $2.2 billion of tax allocated to dividends must be imputed to shareholders because, in effect, this tax constituted part of dividend receipts before tax. In Case A, where retained earnings are to be accounted for, we must further impute the tax of $5.1 billion which was allocated to retained earnings as well as the remaining retention of $13.2 billion. The total imputed income to be added to stockholders' money income thus amounts to $20.6 billion. Such imputed income is not allowed for in the S.R.C. distribution of money income. The latter must be adjusted accordingly to permit us to obtain a meaningful ratio of taxes paid to income received. The adjusted distribution is shown in lines (10) and (11) of Table 6 below.[5]

[4] There are two bases for breaking down the tax between the part falling on undistributed profits and the part falling on dividends. One basis is according to distribution of profits between undistributed profits and dividends in 1948. This breakdown was 62 per cent to undistributed profits, 38 per cent to dividends. Another basis is according to distribution of marginal profits between undistributed profits and dividends. Additions to profits were examined year by year to see in what proportion they were divided between retained earnings and dividends. If changes in dividends are compared with changes in profits for those years between 1934 and 1948 when profits rose, it may be noted that changes in dividends are in most cases between 14 per cent and 25 per cent of changes in profits. This suggests a marginal rate of distribution of about 20 per cent. The change between 1947 and 1948 was exceptional, however, the change in dividends being 43 per cent of change in profits. In the light of this information, 30 per cent of the tax was assumed to fall on dividends. We thus adopt a ratio which does not differ greatly from the 1948 allocation. Some allowance is made for the fact that between 1947 and 1948 the marginal rate of distribution of dividends was higher than it usually has been.

[5] The adjusted distribution, strictly speaking, is not applicable to the unadjusted bracket limits. In-

Case B involves the same shifting assumptions as Case A, but retained earnings and the tax thereon are disregarded. Shareholders, accordingly are debited with a tax of only $2.2 billion (i.e. the part of the tax on profits that is taken to be reflected in reduced dividends), and their income is credited by a similar amount.

In Case C the entire tax is taken to fall on profits, but the reported data for 1948 are again used as the point of departure. This raises certain difficulties, as there is an implicit assumption that underlying economic conditions differ from those assumed to prevail in Case A. Otherwise, since the entire tax is now assumed to fall on profits, the gross profit figure could not be the same as in Case A where part of the tax was shifted.[6] Proceeding in a manner analogous to our reasoning in Case A,

TABLE 3

ASSUMPTIONS FOR CORPORATION INCOME TAX

(Money amounts in billions of dollars)

	Cases					
	A*	B	C	D	E	F
Reported data						
(1) Profits before tax	34.7	34.7	34.7	34.7	34.7	34.7
(2) Tax collected from corporations	13.6	13.6	13.6	13.6	13.6	13.6
(3) Profits after tax	21.1	21.1	21.1	21.1	21.1	21.1
(4) Dividends	7.9	7.9	7.9	7.9	7.9	7.9
(5) Retained profits	13.2	13.2	13.2	13.2	13.2	13.2
Shifting assumptions						
(6) Per cent absorbed by profits	54.2	54.2	100.0	100.0	....	....
(7) Per cent absorbed by wage earners	12.5	12.5	....	....	....	....
(8) Per cent absorbed by consumers	33.3	33.3	....	....	100.0	100.0
(9) Are retained earnings allowed for?	yes	no	yes	no	yes	no
Allocation of tax (amounts)						
(10) To dividends	2.2	2.2	4.1	4.1	....	....
(11) To retained earnings	5.2	....	9.5	....	....	....
(12) To wage earners	1.7	1.7	....	....	....	....
(13) To consumers	4.5	4.5	....	....	13.6	13.6
(14) Total accounted for	13.6	8.5	13.6	4.1	13.6	13.6
Imputed income (amounts)						
(15) From tax on dividends	2.2	2.2	4.1	4.1	....	....
(16) From tax on retained profits	5.2	....	9.5	....	....	....
(17) From retained profits	13.2	....	13.2	....	13.2	....
(18) Total imputed	20.6	2.2	26.8	4.1	13.2	....

* Standard case.

Note: Details do not necessarily add to totals because of rounding.

Source: *Survey of Current Business*, July, 1949, Tables 8, 17, 19, 20, 21.

stead of referring to "spending units in the, say, $4,000 to $4,999 group" we should say "spending units which fall between the unadjusted bracket limits of $4,000 to $4,999."

[6] For any *given economic situation*, gross profits will differ, depending on whether part of the tax is shifted or not. Since gross profits in Table 3 are taken to be the same for all shifting cases, it must be that underlying *economic conditions are assumed to differ*. Differences in the burden distribution for the different cases, therefore, reflect differences in

we now debit shareholders with tax payments of $13.6 billion and credit them with imputed income of $26.8 billion. The data for Cases D to F are set up in a similar fashion, as may be seen from Table 3.

underlying economic conditions as well as differences in shifting.

An alternative procedure might be followed which would remove the obstacle of implied differences in basic economic conditions, so that the measure of differential incidence would not have to be impeded by extraneous differences in the general economic situation. Suppose the standard case is taken to be the true one, i.e., that one-third of the tax is shifted forward and one-eighth back. Observed gross profits are $34.7 billion. Deducting shifted taxes, we find that profits net of shifted tax are $28.5 billion. The picture for the standard case is exactly the same for both methods. Now we work out the other five cases with the same shifting and retained earning assumptions shown in the table. But instead of starting from given *gross* profits, as in the text method, we take *net* profits of $28.5 billion as the common starting point for all cases. With this method, taxes would be distributed between groups exactly as with the previous procedure. But income additions would differ in cases C, D, E, and F. These differences in income would be traceable to the fact that retained profits would turn out to be different, and so would dividends. In Case C, for example, gross profits as well as net profits would be $28.5 billion since it is assumed that there is no shifting. Under the text method, gross profits in Case C were $34.7 billion, to equal the observed figure. The difference in profits net of shifted tax leads to a fall in retained profits of $2.1 billion from the figure applicable under the text method, and a fall in dividends of $3.1 billion. Thus income additions under the alternative method will fall short of those under the text method by $5.2 billion.

The difficulty with this procedure, however, is that we do not know to begin with which shifting assumption—and hence which interpretation of gross profits—is the correct one. And the results under the alternative method will differ, depending upon which case is chosen as the starting point. The procedure used in the text has the advantage that the results, *in each case*, are based on the reported figures. It shows how the burden of the tax would have been distributed had one or the other shifting assumption (and the implicit interpretation of profit position in the absence of a tax) been correct. However, in comparing the results under the various cases we must be careful to note that differences not only reflect different shifting assumptions but also different interpretations of the underlying economic situation.

Allocation of Tax Components.—We may now consider how the various components of the corporation tax are distributed by spending unit income brackets.

The part of the tax allocated to shareholders is distributed according to an estimated distribution of dividend income, and the allocation of imputed income is carried out on the same basis. The distribution of dividend receipts was derived from a distribution of dividends by taxable income brackets, available in the Treasury's *Statistics of Income for 1947*. In the absence of better information, it was assumed that this 1947 distribution applies for 1948 as well. The distribution by taxable income brackets had then to be translated into a distribution by spending units, comparable to the S.R.C. data. The results of this procedure, which involves a good deal of difficulty and possible error, are shown in line (15) of Table 1.

The *forward-shifted* part of the corporation income tax was treated similarly to excises, as discussed below. Where possible the forward-shifted part of the corporation tax was allocated to specific items of consumer expenditure, about 12 per cent of the total being treated in this fashion. The remainder was distributed among income brackets in accordance with the distribution of total consumer expenditures shown in line (2) of Table 1.

The *backward-shifted* part of the corporation income tax was allocated in accordance with a distribution of wage and salary incomes by spending units. This distribution was estimated again from S.R.C. and *Statistics of Income* data and is shown in line (16) of Table 1. As in the case of dividends, the

derivation of the wage and salary distribution is subject to a considerable margin of error.

State Corporation Taxes.—In determining the allocation of the corporation income tax the share levied at the state level is treated as though it were distributed between income brackets exactly like Federal taxes. This introduces some inaccuracy, since in all probability state corporation taxes are less progressive than Federal taxes; items other than net income are frequently included in the state tax base. The above procedure was adopted because it was not feasible to submit each of the state taxes to separate treatment.

6. Tax Allocation: Excises Taxes [7]

Total excise and sales taxes are included in this study, no exception being made for such " benefit taxes " as state gasoline levies. It might be argued that such earmarked taxes are tied to specific expenditure purposes and that the concept of differential incidence cannot be applied, the only feasible approach being in terms of a combined tax-expenditure incidence. While there is some merit to this view, the line is difficult to draw; and it was decided to include all taxes without distinction.

Excise and sales taxes of all kinds are assumed to be entirely shifted forward to the consumer. As noted in section I, this disregards the resulting interindustry shifts in profits and wages. Short of a much more elaborate analysis, there is no way in which such adjustments can be allowed for. And, as noted before, it does not seem unreasonable to assume that such shifts will produce no major changes in the distribution of income by brackets.

The yield of indirect taxes, therefore, is allocated by spending unit income brackets in accordance with the distribution of consumer expenditures. Wherever possible, excises are assigned to specific expenditure items and distributed in accordance with the specific expenditure patterns shown in lines (7) to (14) of Table 1. Where no such assignment was possible, as in the case of customs duties, the allocation is made according to the general distribution of consumer expenditures shown in line (2) of the table.

In certain cases the entire tax can be assigned to a specific category of expenditures. Thus, proceeds from liquor and tobacco taxes can be distributed wholly in accordance with the respective distributions of consumer expenditures. In other cases, e.g. automotive taxes, it was necessary to estimate a breakdown of the yield between that part reflected directly in automotive expenses of the consumer and another part entering into the costs of operating business in general. The former was allocated in accordance with automotive expenditures of consumers; the latter was assigned according to the distribution of total consumer expenditure. A summary of the amounts of excises allocated to specific expenditure categories is shown in Table 4, which also provides similar information for the forward-shifted part of the corporation income tax.

The distribution for total consumer expenditures shown in line (2) of Table 1 was obtained directly from the S.R.C. data. The specific distributions shown in lines (7) to (14), on the

[7] The term excise is here used loosely to include all kinds of taxes assessed largely or wholly on gross receipts, sales, or production costs.

other hand, involved extensive adjustments in the B.L.S. data. Therefore the advantage gained by allocating excises according to expenditure patterns for specific items may be cancelled by the lesser reliability of these distributions.

TABLE 4

ALLOCATION OF EXCISE TAXES BY EXPENDITURE PATTERNS

(In millions of dollars)

Allocated According to Table 1:	Excises*		Forward-shifted Part of Corporation Tax†
	Federal	State and Local	
Line (2)	2,173	1,890	3,561
Line (7)	1,312	409	39
Line (8)	601	994	232
Line (9)	110	....	305
Line (10)	576	165	32
Line (11)	197	784	250
Line (12)	2,177	583	....
Line (13)	203	134	121
Line (14)	463	134	....
Total	7,912	6,093	4,540

*For explanations, see appendix, Table 19.
†Standard case.

An alternative allocation of excise taxes was prepared in which all specifically allocated taxes were redistributed according to the pattern for total consumer expenditures. As shown in section IV, the results do not differ greatly from those obtained by the more detailed method.

7. *Tax Allocation: Property Tax*

Allocation of the property tax raises numerous difficulties. Since this tax is of great importance, especially for the distribution of the tax burden among the lower income brackets, these difficulties must be set forth in some detail.

Allocation of Tax by Category.—Notwithstanding the scarcity of data, it seemed desirable first to determine the principal categories into which the property tax yield should be divided in order to permit us to apply reasonable shifting assumptions to the component parts.

Accordingly, the total yield was divided into fourteen component parts. The first division is between taxes paid on real estate and taxes paid on personal property. The tax on real estate is subdivided into taxes paid on owner-occupied homes, leased residential property, business property, and farm property. In each case a further division is made between tax on assessed land value and tax on assessed value of improvements. The tax yield allocated to personal property is divided between property held by farmers, businesses, and nonfarm individuals. In each case, a further distinction is drawn between tax on tangibles and tax on intangibles.

The estimated distribution of the property tax yield according to these categories is shown in column (1) of Table 5. The reader who is at all familiar with the paucity of data in this area will be aware that this implies a great deal of conjecture. While there is fairly adequate information to support the over-all allocation between real estate and personal property, information on which to base the further allocation of real estate taxes is more limited, and there is little if any basis on which to estimate the breakdown of the yield total that is derived from personal property. The detailed breakdown, shown in Table 5, therefore, should not be taken to imply that we are in a position to defend each figure shown. In some instances, it is merely a matter of making our assumptions explicit. Changes in the distribution of

property tax payments which might result from alternative yield allocations are explored in section III.

Shifting Assumptions.—We now proceed to consider what shifting assumptions to apply to each of the fourteen parts of the property tax and what pattern of allocation to use. These patterns are also summarized in Table 5.

TABLE 5

ALLOCATION OF PROPERTY TAX YIELD BY TYPE OF PROPERTY *

(In millions of dollars)

Type of Property	Yield			Allocated According to Table 1, line:
	Case A †	Case B	Case C	
Real Estate:				
(1) Farm, land	434	434	434	(18)
(2) Farm, improvements	217	217	217	(2)
(3) Business, land	322	506	133	(15)
(4) Business, improvements	643	759	532	(2)
(5) Rental, land	412	374	307	(18)
(6) Rental, improvements	823	561	1,228	(5)
(7) Owner-occupied residential, land	670	670	670	(4)
(8) Owner-occupied residential, improvements	1,330	1,330	1,330	(4)
(9) Total, real estate	4,851	4,851	4,851	....
Personal Property:				
(10) Business, tangible	275	175	375	(2)
(11) Business, intangible	274	175	375	(2)
(12) Farm, tangible	57	57	57	(2)
(13) Farm, intangible	58	58	58	(2)
(14) Non-farm, tangible	275	225	105	(3)
(15) Non-farm, intangible	274	525	245	(6)
(16) Total, personal property	1,213	1,213	1,213	....
(17) Total, real and personal	6,064	6,064	6,064	....

* For sources and explanation see appendix.

† Standard case.

To the extent that the *real estate tax* is assessed upon the value of *land*, it is assumed to rest on the owner. This is in accordance with the principle that a tax on land cannot be shifted, since rent is not a determinant of price. The tax on owner-occupied residential property is allocated in accordance with the S.R.C. distribution of expenditures for housing by home owners, as shown in line (4) of Table 1. The tax on business property is distributed in accordance with the distribution of dividend payments shown in line (15) of Table 1. For leased residential and farm property the distribution of the tax corresponds to the distribution of rental income shown in line (18) of Table 1.

To the extent that the tax on *real estate* is assessed upon the value of *improvements*, it may or may not be shifted depending upon the type of property. In the case of owner-occupied residential property, this part of the tax is again taken to rest on the owner. As in the case of land value, the tax is distributed on the basis of

housing expenditures of owners. In the case of leased residential property, the tax on improvements is assumed to be shifted to the tenant since taxes on improvements will enter into cost of production. The tax thus shifted to the tenant is allocated by income brackets on the basis of housing expenditures of renters, as shown in line (5) of Table 1. In the case of business property, the tax on improvements is treated as an excise entering into the general cost of doing business. It is assumed to be shifted forward and is allocated according to the pattern of total consumer expenditures. The same procedure is applied to improvements on farm real estate, it being assumed that the assessed value of improvements in farm real estate reflects business rather than residential facilities. In the absence of information permitting a split between these two types of farm improvements, this appears to be the more reasonable assumption.

Turning now to the tax assessed on *personal property*, let us begin with the tax on *tangibles*. The tax on tangible property owned by individuals may be expected to rest with the owner. It is allocated according to a distribution of consumer expenditures on durables, obtained from the S.R.C. and shown in line (3) of Table 1. The tax on tangible property owned by businesses and farmers is considered a cost of production. Shifted forward, it is allocated according to the distribution of total consumer expenditures. In the case of property held by businesses and farmers, the tax falling on *intangibles* is treated similarly to that on tangibles. In the case of individuals other than farmers, the assumption is again that the tax on intangibles is not shifted. The allocation, in this case, is based upon the S.R.C. distribution of liquid asset holdings shown in line (6) of Table 1.

8. *Tax Allocation: Social Security Taxes*

Payroll taxes, including the contribution of employers and employees, are covered in this study along with other taxes. There may be some doubts whether such taxes should be included in a study of this kind. First, it may be argued that payroll tax receipts are linked contractually to benefit payments, so that our concept of differential incidence cannot be applied. Second, it may be argued that payroll taxes are traded on a *quid pro quo* basis against benefit payments, the entire process being more in the nature of an insurance purchase than a tax. While there is some validity in both points, neither is conclusive.

The link between payroll tax receipts and benefit payments is rather legalistic, and alternative methods of finance might well be considered. Moreover, the assumption of a *quid pro quo* relationship between contributions and benefit payments is subject to considerable qualification. Not only are the contributions mandatory, but there are substantial redistributional elements in the benefit formulas. The very notion of an employer contribution is incompatible with the *quid pro quo* interpretation. From the employer's point of view the payroll tax is no less a cost of doing business than any other tax levied upon the use of resources. A possible solution might be to include only the employer contribution, but this presumes that the latter is not shifted to the employee. While the whole problem of expenditure treat-

ment is particularly acute in connection with the payroll tax, it seemed preferable to exclude it. The reader who wishes to consider the results net of payroll tax may do so readily from the data presented in section III.

Shifting Assumptions.—Of total payroll taxes collected in 1948, about two-thirds were contributed by employers and one-third by employees.

Depending upon circumstances, the *employer contribution* may be reflected in reduced profits, lower wages, or higher prices. The presumption for a competitive system, however, is that the entire burden is borne by wage earners. Imposition of a payroll tax on the employer raises labor costs; the gross wage rate (including tax) is raised without there being a corresponding increase in productivity. Unless workers are willing to accept a corresponding cut in wages, producers will substitute other factors of production and less labor will be employed. On the assumption that the supply of labor is inelastic, wage rates will fall by the amount of tax. While it is conceivable that the tax may in some instances result in reduced profits, the profit effect is likely to be one of redistribution from more to less labor intensive industries.

But this is an over-simplified view. Once a more realistic view is taken, we may point to a number of reasons why complete backward shifting is unlikely. Suppose for a moment that production requires the combination of all factors in fixed proportions. In this case, the producer cannot avoid the payroll tax by substitution of untaxed factors. The tax, in effect, becomes a general excise assessed on the total cost of production, and as such we may expect it to be shifted forward. While the combination of factors is not fixed in practice, this assumption is less absurd than it may appear. Since the payroll tax applies fairly generally to all types of labor, only a general substitution of capital for labor can be resorted to. This is not possible in the short run. In the longer run such substitution may occur, but we may expect that replaced labor will be reabsorbed in capital goods industries. And public policy, in any case, is not likely to permit prolonged unemployment to result; absorption of such labor through an upward adjustment of prices is the more likely outcome.

Unions, moreover, may cite the "intent of the law" in resisting employer attempts to recoup their contribution by wage reduction. Considerations of these and other institutional factors suggest that forward shifting to the consumer is more likely than backward shifting to the wage recipients. In view of the uncertainties involved, we again make use of alternative assumptions. Three cases are considered. In Case A the employer is taken to shift one-third of his payments to wage earners and two-thirds to consumers. This is the standard assumption. The two other cases present limiting assumptions, Case B providing for complete backward and Case C for complete forward shifting.

The *employee contribution* is assumed to fall on wage earners in all three cases. This follows the usual practice, although it is by no means evident why the incidence of this part of the tax should differ from that of the employer contribution. A different treatment of the employee contribution may be explained only on psychological grounds. Just as the unions may cite the "intent of the law" in their sup-

port when resisting backward shifting of the employer contribution, the public mores are against unions that attempt to recover their own contributions through higher wages. While it seems desirable, in principle, to apply alternative assumptions to both parts of the payroll tax, the additional results do not justify the effort. The burden distributions resulting from allocation on the basis of consumer expenditures are rather similar to those obtained by allocation on the basis of wage receipts.

Allocation of Tax.—The part of the tax which falls upon wage earners is allocated according to an estimated distribution of covered wage income by spending unit income brackets. In order to obtain this distribution, income received by spending units had to be divided into wage and other income; and wage incomes, in turn, had to be divided into covered and uncovered wages. The resulting estimate shown in line (17) of Table 1 again involves a good deal of conjecture.

The part of the tax which falls upon consumers was allocated according to the distribution of total consumer expenditures. An attempt to assign part of the tax to specific expenditure items accounted for too small a fraction of the total to be justified.

9. *Tax Allocation: Estate, Inheritance, and Gift Taxes*

Available data did not permit a breakdown of estate, inheritance, and gift tax payments among income brackets above $7,500. In view of the high level of exemptions permitted under both Federal and state succession taxes, it seemed reasonable to assume that all but a negligible part of the yield should be imputed to income recipients in the top bracket.

The allocation of the yield of succession duties to high income people as a group avoids considerable difficulties which arise when an attempt is made to allocate the incidence of death duties to particular tax payers.[8] Suppose that Mr. Jones is a typical taxpayer with an income of $50,000 and that an average taxpayer at this level of income is endowed with an estate of, say, $400,000. If Mr. Jones had died this particular year, his death duties would have amounted to about $115,000. But, being an average taxpayer, Mr. Jones did not die during the year under consideration. Yet, as the average taxpayer, he must look forward to a corresponding tax liability which will arise at the time of his death. This may be allowed for by imputing to him a death tax payment equal in amount to the premium payable on an annuity sufficient to discharge his death duty at the time of his death. This premium may be estimated at about 7 per cent of income.

No such computation had to be made here. Since it is reasonable to assume that succession duties were paid wholly by spending units with incomes in excess of $7,500, this yield may be related to the income of this group and it may be concluded that spending units in this group paid about 2 per cent of their incomes in such taxes. For taxpayers as a group, the two methods are, however, quite compatible. If instead, we had computed the premiums (as defined above) payable by all taxpayers

[8] See Nicholas Kaldor, "The Estimation of the Burden of Death Duties," in G. F. Shirras and L. Rostas, *The Burden of British Taxation* (New York, 1943), pp. 80-90.

in this group, the totals of such premiums would, under certain simplifying assumptions, have to equal the actual yield total obtained.

III. DISTRIBUTION OF TAX PAYMENTS UNDER STANDARD ASSUMPTIONS

Keeping in mind the conceptual and statistical limitations set forth in the preceding chapters, let us now turn to the quantitative results of the study. In this section we examine the results obtained on the basis of our standard assumptions. Other results derived from alternative assumptions will be considered in the final section.

1. *Distribution of Total Tax Payments*

The over-all distribution of tax payments, combining total taxes paid at all levels of government, is shown in Table 6 and Chart I. Lines (1), (2), and (3) of Table 6 give the dollar amounts of total tax payments contributed by spending units within the various income brackets. Lines (4), (5), and (6) show the corresponding percentage distributions of total tax payments, and lines (7) to (9) give the dollar amounts as percentages of income received in the respective brackets. The latter ratios, which relate taxes paid to

TABLE 6

DISTRIBUTION OF TAX PAYMENTS BY INCOME GROUPS: SUMMARY*

(Money amounts in millions of dollars)

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Amounts								
(1) Federal	620	2,243	5,392	6,682	5,079	6,754	17,010	43,794
(2) State and local	433	1,123	2,131	2,512	1,755	2,061	3,542	13,552
(3) All levels	1,052	3,366	7,523	9,194	6,834	8,815	20,552	57,344
Per cent of yield total								
(4) Federal	1.4	5.1	12.3	15.3	11.6	15.4	38.8	100.0
(5) State and local	3.2	8.3	15.7	18.5	12.9	15.2	26.1	100.0
(6) All levels	1.8	5.9	13.1	16.0	11.9	15.4	35.8	100.0
Per cent of income								
(7) Federal	16.5	16.2	18.6	19.0	19.3	21.1	30.1	22.3
(8) State and local	11.6	8.1	7.3	7.1	6.7	6.4	6.3	6.9
a. State	5.8	3.9	3.7	3.7	3.5	3.4	3.4	3.6
b. Local	5.8	4.2	3.7	3.5	3.2	3.0	2.8	3.3
(9) All levels	28.1	24.3	25.9	26.1	26.0	27.6	36.3	29.2
Addenda								
(10) Income received	3,747	13,850	29,037	35,207	26,283	31,953	56,542	196,619
(11) Per cent of income†	1.9	7.0	14.8	17.9	13.4	16.3	28.8	100.0
(12) Per cent of spending units	12.2	17.7	22.9	20.1	11.6	10.2	5.3	100.0

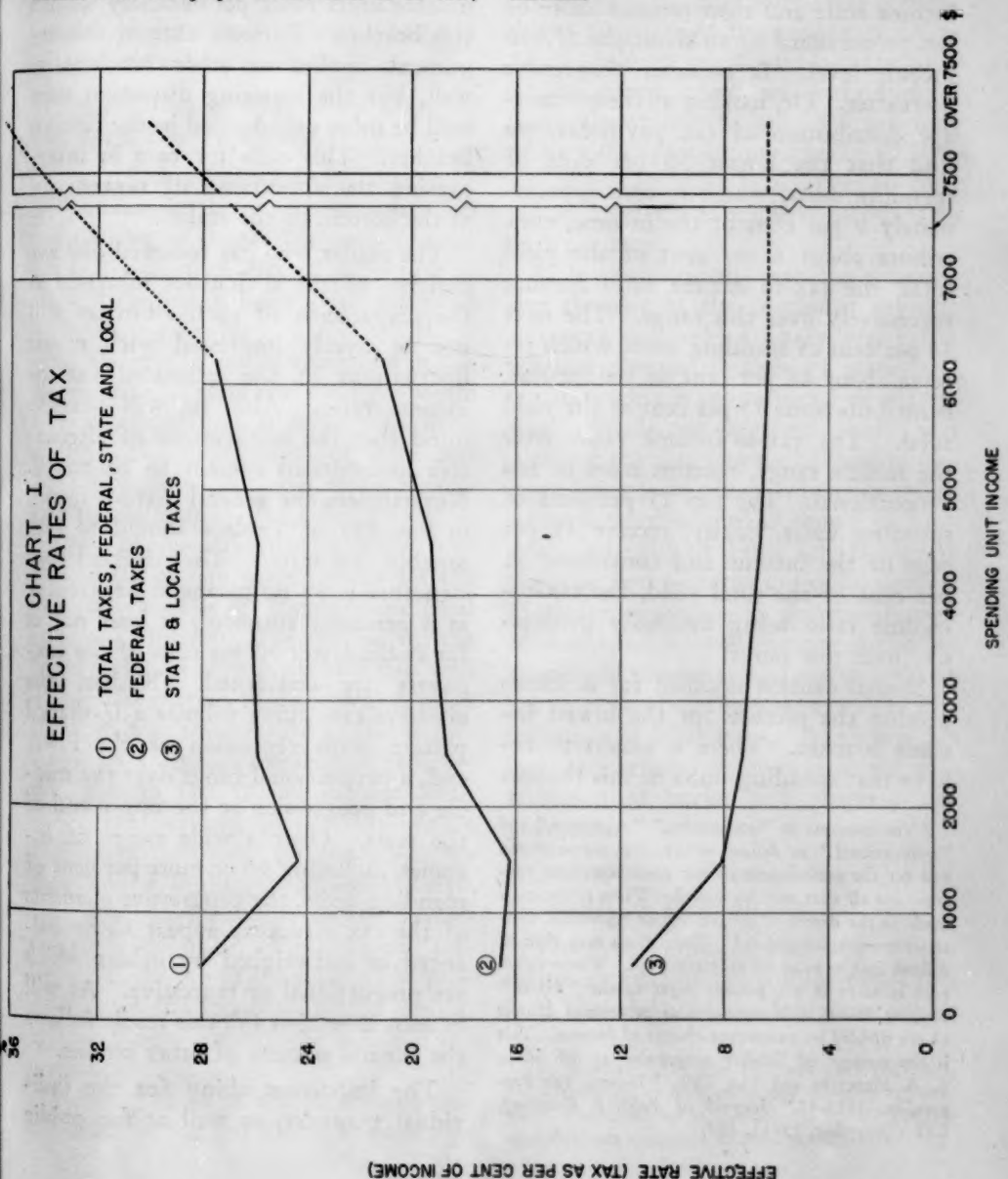
*Standard assumptions throughout.

†Includes income imputed under standard corporation assumption.

Note: Details may not add to totals because of rounding.

income received, provide the most interesting part of the evidence.[1] Commonly referred to as "effective rates of tax," these ratios show whether the tax structure is proportional, i.e. tax payments as a percentage of income are the same at all income levels; progres-

[1] Our concern is with differences between effective rates at different levels of income rather than with the average level of effective rates as shown in the last column. While the latter reflects the total level of income and tax payments, the former depends upon their distribution only. While there are some doubts about the proper income total to be used, these doubts do not apply to the underlying distribution.



sive, i.e. tax payments are an increasing percentage of income when moving up the scale; or regressive, i.e. the tax to income ratio declines with rising income.[2]

As will be seen from line (9) of Table 6, the tax-to-income ratio for 1948 is regressive at the bottom of the income scale and then remains more or less proportional up to about the $5,000 income level. It becomes progressive thereafter. Or, looking at the percentage distribution of tax payments, we find that the lowest 30 per cent of spending units, which receive approximately 9 per cent of the income, contribute about 8 per cent of the yield total, the tax-to-income ratio moving regressively over this range. The next 54 per cent of spending units, which receive about 46 per cent of the income, contribute some 41 per cent of the yield total. The tax-to-income ratio, over the middle range, remains more or less proportional. The top 15 per cent of spending units, finally, receive 45 per cent of the income and contribute 51 per cent of the total yield, the tax-to-income ratio being decidedly progressive over this range.

Special caution is called for in interpreting the picture for the lowest income bracket. There is reason to believe that spending units in this bracket are composed, not only of genuinely low income units, but also of others which have incurred temporary losses but are normally in a higher bracket. This results in a higher rate of expenditures or dividend receipts—and hence greater tax payments—for the group as a whole than is likely to apply to low income units more permanently within this bracket. To some extent, this argument applies to other brackets as well, but the resulting distortion may well be more pronounced in the bottom bracket. This calls for care in interpreting the appearance of regressivity at the bottom of the scale.

The reader who has followed our exposition of the difficulties inherent in the preparation of such estimates will not be overly impressed with minor fluctuations in the estimated tax-to-income ratio. Also, he will bear in mind that the implications of alternative assumptions remain to be tested. Nevertheless, the general pattern shown in line (9) of Table 6 should be reasonably accurate. The over-all tax structure is by no means as progressive as is generally surmised, at least not as far as the lower 90 per cent of the taxpayers are concerned. Rather, the effective rate curve follows a *U*-shaped pattern with regression at the lower end, a proportional range over the middle and progression at the upper end of the scale. Over a wide range of incomes, including 90 or more per cent of spending units, the progressive elements of the tax structure appear to be balanced or outweighed by others which are proportional or regressive. As will be seen in section IV, this result follows the general pattern of other studies.

The important thing for the individual taxpayer, as well as for public

[2] The concepts of "progressive," "regressive," and "proportional" as defined above, are unambiguous, and for the greater part of our discussion these concepts are all that will be needed. When reference is made to the *degree* of progression or regression, matters are more complicated. These terms may then be defined in a number of different ways. Where reference is made in the present paper to the "degree" of progression, it is measured as percentage change of tax divided by percentage change of income. This is the concept of liability progression as defined in R. A. Musgrave and Tun Thin, "Income Tax Progression, 1929-48," *Journal of Political Economy*, LVI (December, 1948), 504.

policy, is the distribution of payments (and hence the tax-to-income ratios) under the composite tax structure and not the separate distribution of payments under one or another particular tax. But, only by considering how tax payments for the various components of the revenue structure are distributed, can it be understood how the over-all pattern of distribution comes about and what may be done to adjust it.

2. *Distribution of Federal vs. State and Local Tax Payments*

The first breakdown to be considered is between levels of government. A comparison of lines (7) and (8) of Table 6 indicates a distinct difference in the distribution of Federal and state and local tax payments.

The degree of initial regression in the distribution of state and local payments is pronounced and is subject to little doubt. The distribution of state and local payments continues to be regressive throughout.

Some degree of regression at the bottom of the income scale appears for the Federal as well as for the state and local system. However, the decline of the Federal ratio is very slight and falls well within the margin of error which must be applied to these results. This is followed by a distinct element of progression around the $2,000 income level, where the personal income tax makes itself felt. Moving up the scale, we then find a slightly progressive distribution of payments up to the $5,000 range, with distinct progression following at the top of the scale. The progression in the top brackets, of course, reflects almost entirely the personal income tax.

Looking again at the percentage distribution of tax payments, as shown in lines (4) and (5) of Table 6, we find that both the Federal and state-local revenue structures derive about 27 to 28 per cent of their yield totals from incomes in the $4,000 to $7,500 range. But, whereas the Federal Government derives 39 per cent from incomes above $7,500 and 33 per cent from incomes below $4,000, the state-local system draws 46 per cent from incomes under $4,000 and 26 per cent from the over $7,500 group. And, while the Federal Government obtains only 6.5 per cent of its yield from incomes under $2,000, the share of state-local revenue contributed by these brackets amounts to 11.5 per cent.

It is thus evident that the progressive element in the combined revenue structure is provided by Federal taxes, whereas the distribution of state-local tax payments is proportional or regressive. While no separate study was made of the distribution of state as distinct from local tax payments, a rough estimate of this kind is shown in lines (8a) and (8b) of Table 6.[3] It appears that the two patterns are quite similar. However, regression in the distribution of state taxes is more distinct at the beginning of the range and not so great at the upper end of the scale as in the distribution of local taxes. As shown below, this reflects differences in the distribution of excise and property tax payments.

3. *Distribution of Federal Tax Payments by Type of Tax*

The distribution of Federal tax payments by type of tax is shown in Table 7. The distribution for some major

[3] In breaking down line (8) into (8a) and (8b), the distribution of state excise and property tax payments is assumed to be the same as the distribution of similar tax payments to local governments.

taxes is also shown in Chart II. As shown in lines (13) to (18) of Table 7, the major progressive element is the personal income tax. This tax provides nearly one-half of the yield total and results in a progressive distribution of payments over the entire range to which it applies. Excise taxes are regressive throughout, as may be expected. The corporation income and payroll taxes show a fluctuating pattern up to the $5,000 range, above which the former becomes distinctly progressive and the latter distinctly regressive. The estate and gift taxes are highly progressive but do not carry much weight in the total yield picture.

Little need be said in explanation of the *personal income tax* distribution as shown in line (13) of Table 7. The reader will recall that the tax-to-income ratios shown apply to the income of spending rather than taxpaying units. Because of the presence of more than one income recipient in the typical spending unit, the splitting of income between spouses, and other factors, the pattern of income tax payments is less progressive when allocated by spending units than when allocated by taxpaying units. Also, it is evident that our data understate the degree of progression applicable to high incomes, since there is no breakdown of incomes above $7,500.

TABLE 7

DISTRIBUTION OF FEDERAL TAX PAYMENTS BY INCOME GROUPS *

(Money amounts in millions of dollars)

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Amounts								
(1) Personal income tax	9	469	1,543	2,328	2,201	3,537	7,958	18,045
(2) Corporation income tax ..	273	712	1,331	1,582	1,166	1,466	6,388	12,920
(3) Excises	226	714	1,394	1,700	1,117	1,292	1,467	7,912
(4) Payroll taxes	112	348	1,133	1,072	595	459	297	4,015
(5) Estate and gift taxes	...	...	...	...	...	...	900	900
(6) Total	620	2,243	5,392	6,682	5,079	6,754	17,010	43,794
Per cent of yield total								
(7) Personal income tax	0.1	2.6	8.5	12.9	12.2	19.6	44.1	100.0
(8) Corporation income tax ..	2.1	5.5	10.3	12.2	9.0	11.3	49.4	100.0
(9) Excises	2.9	9.0	17.6	21.5	14.1	16.3	18.5	100.0
(10) Payroll taxes	2.8	8.7	28.2	26.7	14.8	11.4	7.4	100.0
(11) Estate and gift taxes	...	...	...	...	...	...	100.0	100.0
(12) Total	1.4	5.1	12.3	15.3	11.6	15.4	38.9	100.0
Per cent of income								
(13) Personal income tax	0.2	3.4	5.3	6.6	8.4	11.1	14.1	9.2
(14) Corporation income tax ..	7.3	5.1	4.6	4.5	4.4	4.6	11.3	6.6
(15) Excises	6.0	5.2	4.8	4.8	4.2	4.0	2.6	4.0
(16) Payroll taxes	3.0	2.5	3.9	3.0	2.3	1.4	.5	2.0
(17) Estate and gift taxes	...	...	...	...	...	...	1.6	.5
(18) Total	16.5	16.2	18.6	19.0	19.3	21.1	30.1	22.3

* Standard assumptions throughout.

Note: Details do not necessarily add to totals because of rounding.

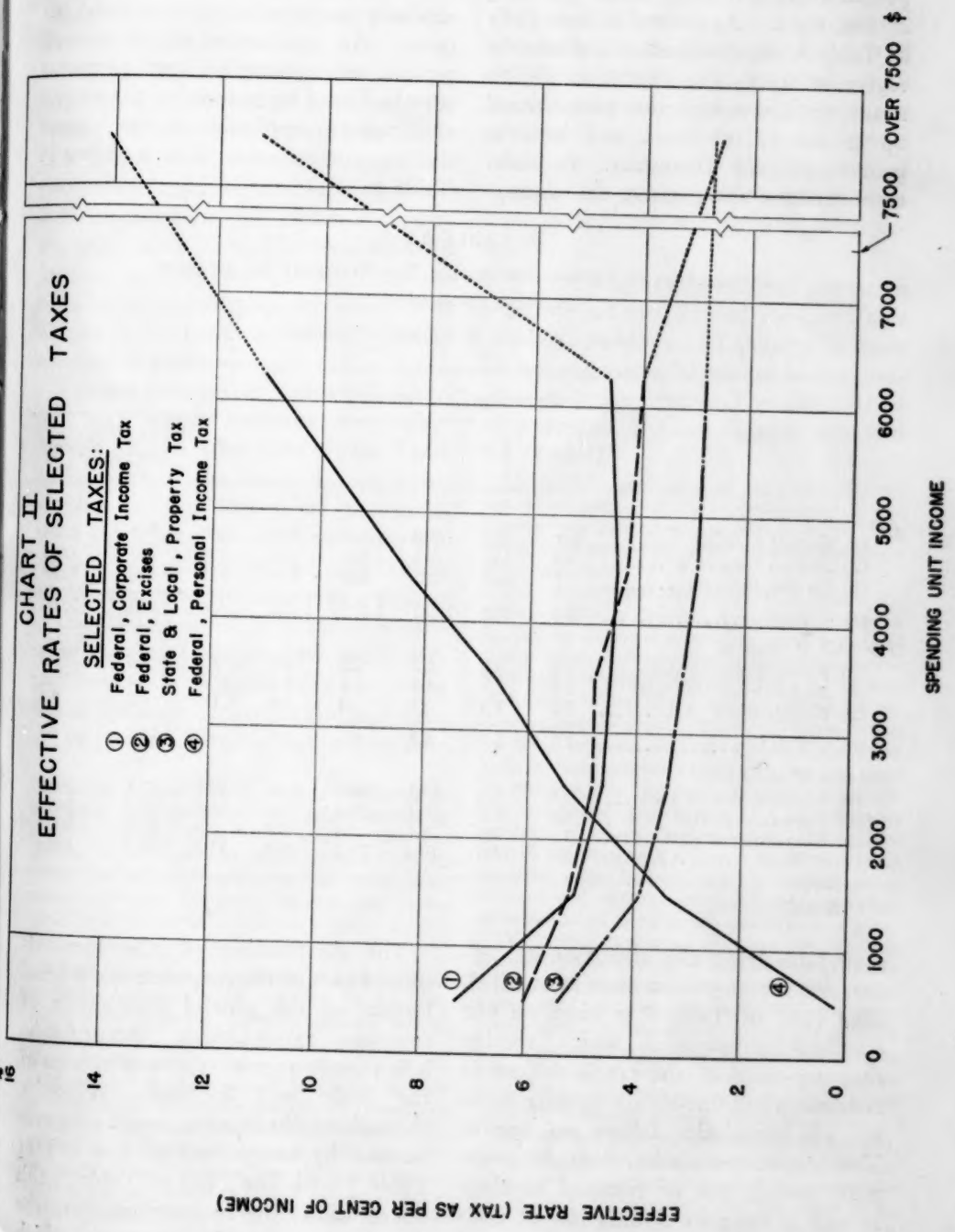


CHART II
EFFECTIVE RATES OF SELECTED TAXES
SELECTED TAXES:
① Federal, Corporate Income Tax
② Federal, Excises
③ State & Local, Property Tax
④ Federal, Personal Income Tax
EFFECTIVE RATE (TAX AS PER CENT OF INCOME)
0
2
4
6
8
10
12
14
0
1000
2000
3000
4000
5000
6000
7000
7500 OVER 7500 $
SPENDING UNIT INCOME

The indicated distribution of *corporation tax* payments seems puzzling at first sight. As shown in line (14) of Table 7, the distribution is distinctly regressive up to the $2,000 to $3,000 range, remains more or less proportional up to the $7,500 level, and becomes progressive only thereafter. In order to understand this pattern, the assumptions underlying this allocation of corporation tax payments must be recalled. Line (14) of Table 7 is based on our standard assumptions which specify that one-third of the tax is shifted to consumers and one-eighth to wage earners, the remainder falling on profits. This entire remainder, including the part coming out of retained earnings as well as the part coming out of dividends, is imputed to shareholders; and retained earnings after tax plus the share of the tax falling on profits are similarly imputed to shareholders' income. An explanation of the over-all pattern of corporation tax payments may be found by examining the respective patterns applicable to the various shifting components. This is shown in Table 8.

TABLE 8

DISTRIBUTION OF FEDERAL CORPORATION TAX PAYMENTS FOR SEPARATE SHIFTING COMPONENTS *

(Money amounts in millions of dollars)

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Amounts								
(1) Shifted forward	157	403	779	900	623	695	748	4,306
(2) Shifted backward	39	148	314	381	284	259	190	1,615
(3) On shareholders	77	161	238	301	259	511	5,451	6,998
(4) Total	273	712	1,331	1,582	1,166	1,466	6,388	12,920
Per cent of income								
(5) Forward-shifted part	4.2	2.9	2.7	2.6	2.4	2.2	1.3	2.2
(6) Backward-shifted part	1.0	1.1	1.1	1.1	1.1	.8	.3	.8
(7) Shareholders' part	2.1	1.2	.8	.9	1.0	1.6	9.6	3.5
(8) Total	7.3	5.1	4.6	4.5	4.4	4.6	11.3	6.5
Per cent of yield total								
(9) Forward-shifted part	3.6	9.4	18.1	20.9	14.5	16.1	17.4	100.0
(10) Backward-shifted part	2.4	9.2	19.4	23.6	17.6	16.0	11.8	100.0
(11) Shareholders' part	1.1	2.3	3.4	4.3	3.7	7.3	77.9	100.0
(12) Total	2.1	5.5	10.3	12.2	9.0	11.3	49.4	100.0

* Standard case.

The distribution of the forward-shifted part of the corporate tax is based largely on the general distribution of consumer expenditures. Accordingly, it is sharply regressive at the bottom of the scale and continues regressive throughout the income range. As may be seen by comparison of line (5) of Table 8 with line (15) of Table 7, this distribution differs somewhat from the distribution of excise payments, which

rests more largely upon the expenditure pattern for specific consumption items. However, the difference is not substantial.[4]

The backward-shifted part of the tax is allocated in accordance with wage income. As shown in line (6) of Table 8, it follows a more or less proportional pattern up to the higher brackets, where it becomes regressive. This is as may be expected, since capital income tends to become a rising fraction of total income when moving up the scale. The weight of the backward-shifted part in the total is slight.

The distribution of the shareholders' part may appear somewhat surprising. As will be seen from line (7) of Table 8, this part of the tax is distinctly regressive at the bottom of the scale. Since the allocation of this component is based upon the estimated distribution of dividend receipts, it reflects a decline in the ratio of dividend to other income when moving from the first to the second bracket.[5] Regression at the lower end of the scale appears in the part falling on profits as well as in the forward-shifted part of the tax. While the former element is more sharply regressive at the bottom, regression in the latter extends further up the scale and weighs more heavily in the total. Both contribute to the *U*-shaped form of the effective rate curve for total corporation tax payments. Distributions of corporation tax payments for alternative assumptions will be considered below.[6]

The allocation of *excise tax* payments is shown in lines (9) and (15) of Table 7. While the general pattern is more or less regressive, there are a few progressive components. The distribution of payments by components allocated

[4] Had the forward-shifted part been distributed in accordance with the pattern of Federal excises as given in line (9), Table 7, the effective rates for the first three brackets as shown in line (15) of Table 7 would have been 3.2, 4.3, and 2.6 per cent respectively. For the higher brackets the results would have differed little from those shown in line (5) of Table 8. See also Table 14.

[5] Dividend receipts as percentage of spending unit income are estimated at 2.3, 1.3, 0.9, 1.4, 1.1, 1.8, and 10.9 per cent for the seven brackets respectively. This result, it should be noted, is not peculiar to our data but appears in even stronger form in the distribution of dividend receipts by taxable incomes as shown in the *Preliminary Statistics of Income for 1947*, Part I, Treasury Release 32171, November 25, 1949, p. 8. As noted previously, an explanation may be found in the hypothesis that the bottom group includes a large number of *rentiers* and of normally higher bracket people who have suffered temporary losses.

[6] A further complication of the corporation tax distribution arises from the interrelationship of corporation and personal income tax liabilities. The complication applies only to the unshifted part of the corporation tax.

When an additional corporation tax is imposed, the additional liability incurred by the shareholder is equal to the additional corporation tax to be imputed to him, minus such reduction in his personal income tax liability as results from curtailment of his dividend income because of the increased corporation tax. These personal income tax savings will be the higher, per dollar reduction of dividend income, the higher is the dividend recipient's income bracket and hence his marginal rate under the personal income tax. The incremental corporation tax is thus regressive per dollar of reduced dividend income. This offsets, in part, the progressive tendency of the corporation tax which results because (with the exception of the bottom range) dividends tend to increase as a share of income as we move up the income scale.

This personal income tax offset does not enter into determining lines (3) and (7) of Table 8 as in lines (3) and (7) we are concerned with the allocation of a given yield total including corporation and personal income taxes. At the same time, line (7) of Table 8 does not accurately reflect the *additional* liability which would result when adding the corporation tax to the other taxes; there would, in effect, be a partial offset due to lowered personal income taxes.

The difficulty might be overcome, for present purposes, by considering the sum of lines (13) and (14), Table 7, as the *joint* personal and corporation tax liabilities. In considering the joint result of the two taxes, we avoid the difficulties that arise when considering either of the taxes separately.

according to various spending patterns is shown in Table 9, details of the components being described in Table 4 above.

Among the major elements in the excise tax picture, the distribution of tobacco taxes is distinctly regressive through the entire income scale. The distribution of liquor taxes, on the contrary, is progressive at the bottom of the scale; it becomes more or less regressive thereafter, but less so than most other components. The component which is not allocated to specific expenditure categories, but is distributed in accordance with the general pattern of consumer expenditures, shows the sharpest degree of regression at the bottom of the scale. This reflects the occurrence of dis-saving at low levels of income, characteristic of available data on income-expenditure relationships.[7]

Note also the sharp initial element of regression in the tax component allocated according to automotive expenditures. As is apparent from these data, various excises show distinctly different payment patterns.

The distribution of *payroll* tax payments as shown in line (16) of Table 7 follows an irregular pattern up to the third income bracket but becomes distinctly regressive thereafter. This is as may be expected, since only the first $3,000 of wage income for individual earners within any spending unit was subject to payroll tax. The element of regression when moving from the first to the second bracket and the subse-

TABLE 9

DISTRIBUTION OF FEDERAL EXCISE TAX PAYMENTS FOR SEPARATE SHIFTING COMPONENTS: TAX PAYMENTS AS PERCENTAGE OF INCOME

Allocated According to Expenditures on:	Total Amount Allocated (Millions of dollars)	Spending Unit Income Brackets (Thousands of dollars)							
		Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
(1) Tobacco	1,312	1.4	1.1	1.0	0.9	0.7	0.6	0.3	0.7
(2) Auto transport	601	.5	.3	.3	.3	.4	.4	.2	.3
(3) Other transport	110	*	.1	.1	.1	.1	.1	*	.1
(4) Recreation	576	.3	.2	.3	.3	.3	.4	.2	.3
(5) Food	197	.2	.2	.1	.1	.1	.1	*	.1
(6) Liquor	2,177	.5	1.4	1.3	1.4	1.1	1.1	.8	1.1
(7) Rent	303	.3	.2	.2	.2	.2	.1	.1	.2
(8) All other	463	.5	.3	.3	.3	.3	.2	.2	.2
(9) Total consumer expenditures	2,173	1.8	1.2	1.1	1.0	1.0	.9	.5	.9
Total	7,912	5.6	4.9	4.5	4.6	4.0	3.8	2.5	3.8

* Less than 0.05 per cent.

[7] This remains a rather puzzling matter. As noted before, the expenditure-income relationship at the lower end of the scale, and hence the distribution of excise payments, may well be distinctly different for spending units which are permanently in the lower income range than for others who find themselves in the low income position due to temporary misfortune and who maintain more nearly customary standards of living by drawing on their savings. To the extent that this is the case, it should be allowed for in interpreting our *excise data* for the low income range.

quent occurrence of progression when going from the second to the third bracket must again be explained in terms of the distributions applicable to the various shifting components. These are shown in Table 10.

The distribution of payments is again based on our standard assumption, which in this case postulates that two-thirds of the employer contribution is shifted to consumers while the remaining one-third, as well as the entire employee contribution, falls on wage earners. As will be seen from Table 10, the forward-shifted part is distributed according to the general expenditure pattern and hence is regressive throughout the scale. The part falling on wages is progressive up to the $3,000 income level, because covered wages are an increasing fraction of income up to this level. The wage share subsequently becomes regressive, since covered wages decline as a fraction of income received.

TABLE 10

DISTRIBUTION OF PAYROLL TAX PAYMENTS FOR SEPARATE SHIFTING COMPONENTS †
(Money amounts in millions of dollars)

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Amounts								
(1) Part falling on wages	50	200	846	745	366	204	20	2,431
(2) Part falling on consumers ...	62	148	287	327	229	255	277	1,584
(3) Total	112	348	1,133	1,072	595	459	297	4,015
Per cent of income								
(4) Part falling on wages	1.3	1.4	2.9	2.1	1.4	0.6	*	1.2
(5) Part falling on consumers ...	1.7	1.1	1.0	0.9	0.9	0.8	0.5	0.8
(6) Total	3.0	2.5	3.9	3.0	2.3	1.4	0.5	2.0

† Case A (standard).
* Less than 0.05 per cent.
Note: Details do not necessarily add to totals because of rounding.

4. *Distribution of State and Local Tax Payments by Type of Tax*

A detailed analysis of state and local tax payments by type of tax is shown in Table 11. The personal income tax again provides the progressive element, but its contribution to the yield total is too slight in this case to leave a significant impact on the combined pattern of tax payments. The corporation income tax distribution is identical with that at the Federal level, but its quantitative importance is much less. The distribution of excises is generally similar to that shown at the Federal level, although the degree of regression at the bottom of the scale is more marked. This is as may be expected, since a larger part of state and local excises are of the sales tax variety, and taxes on luxury and semi-luxury items are less important than in the Federal structure.

The new and most interesting factor in the distribution of state-local tax payments is the *property tax*. As shown in line (16) of Table 11 and in Chart II, the ratio of property tax payments to income is distinctly regressive at the bottom of the scale and continues to be somewhat regressive throughout the income scale. This over-all pattern again must be explained in terms of the distributions of payment applicable to the various components. This is shown in Table 12 where various parts of the tax are combined according to their underlying patterns of allocation.[8]

The item carrying the greatest weight is the part of the tax falling on owner-occupied residences. It is slightly regressive throughout and reflects the declining importance of housing expenditures when moving up the scale. Next in importance is the tax assessed on personal property, which is regressive, especially at the beginning of the scale. As shown in Table 5, this component combines various elements allocated according to different patterns. However, it appears that the initial element of regression may be

TABLE 11

DISTRIBUTION OF STATE AND LOCAL TAX PAYMENTS BY INCOME GROUPS

(Money amounts in millions of dollars)

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Amounts								
(1) Personal income taxes	...	...	9	32	37	91	331	499
(2) Corporation income taxes..	15	39	72	86	63	79	346	699
(3) Excises	217	545	1,056	1,267	886	1,003	1,121	6,093
(4) Property taxes	201	539	994	1,127	769	888	1,547	6,064
(5) Inheritance taxes	...	...	...	...	...	...	197	197
(6) Total	433	1,123	2,131	2,512	1,755	2,061	3,542	13,552
Per cent of yield total								
(7) Personal income taxes	...	...	1.8	6.4	7.3	18.3	66.3	100.0
(8) Corporation income taxes..	2.1	5.6	10.3	12.3	9.0	11.3	49.5	100.0
(9) Excises	3.6	8.9	17.3	20.8	14.5	16.5	18.4	100.0
(10) Property taxes	3.3	8.9	16.4	18.6	12.7	14.6	25.5	100.0
(11) Inheritance taxes	...	...	...	...	...	...	100.0	100.0
(12) Total	3.2	8.3	15.7	18.5	12.9	15.2	26.1	100.0
Per cent of income								
(13) Personal income taxes	...	...	*	0.1	0.1	0.3	0.6	0.3
(14) Corporation income taxes..	.4	.3	.2	.2	.2	.2	.6	.4
(15) Excises	5.8	3.9	3.6	3.6	3.4	3.1	2.0	3.1
(16) Property taxes	5.4	3.9	3.4	3.2	2.9	2.8	2.7	3.1
(17) Inheritance taxes	...	...	...	...	...	...	.3	.1
(18) Total	11.6	8.1	7.3	7.1	6.7	6.4	6.3	6.9

* Less than 0.1 of 1 per cent.

Note: Details do not necessarily add to totals because of rounding.

[8] For explanation of these components see Table 5.

traced to the shares falling on business and farm intangibles, which are taken to be reflected in production costs and allocated according to consumer expenditures. The share of the tax falling on business land reflects the pattern of dividend distribution, while that on farm and rental land reflects the pattern of rental income distribution. with the exception of the part falling on rental improvements show some degree of regression at the lower end of the scale. Moreover, all components with the exception of the part falling on business, farm, and rental land value continue to be regressive from the second bracket up. The pattern, it appears, is fairly uniform. Except for

TABLE 12

DISTRIBUTION OF PROPERTY TAX PAYMENTS FOR SEPARATE COMPONENTS *

(Yield in millions of dollars)

Item	Total Yield	Percentage of Income							
		Spending Unit Income Brackets (Thousands of dollars)							
		Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
(1) Land: farm and rental ...	846	1.07	0.49	0.29	0.28	0.27	0.32	0.68	0.43
(2) Land: business	322	.11	.05	.04	.04	.05	.07	.44	.16
(3) Improvements: business and farm	860	.88	.58	.54	.51	.47	.43	.27	.44
(4) Improvements: rental	823	.72	.81	.68	.52	.43	.38	.13	.42
(5) Owner-occupied residences	2,000	1.44	1.27	1.16	1.21	1.06	.94	.76	1.02
(6) Personal property	1,213	1.15	.69	.72	.65	.64	.64	.46	.62
(7) All components	6,064	5.4	3.9	3.4	3.2	2.9	2.8	2.7	3.1

* Standard case.

Note: Details do not necessarily add to totals because of rounding.

Both items are regressive at the bottom of the scale. Both become progressive above the $4,000 range; the tax allocated to business land becomes highly progressive at the upper end of the scale. The two remaining items, finally, are both regressive throughout the entire scale. The distribution of tax payments falling on business and farm improvements reflects the excise pattern, while that of tax payments falling on improvements on rental real estate is based on the pattern of housing expenditure.

In short, all the shifting components the impact of the tax on land upon the higher income ranges, it appears that the combined pattern shown in line (16) of Table 11 may be considered fairly reliable. This conclusion is supported by the testing of alternative property tax assumptions in the following section.

5. *A Measure of Differential Incidence*

In the introductory section we concluded that a proper determination of incidence could be in the form of either (1) an absolute measure of the combined incidence of both the revenue

and expenditure sides of the budget, or (2) a differential measure of tax incidence. We are here concerned with tax incidence only, but up to this point have approached the problem in absolute rather than differential terms. In order to translate our results into a measure of differential incidence the estimated absolute incidence of the actual tax structure may now be compared with that of an alternative structure. For reference purposes, let us consider a structure under which the same yield total is raised but the money burden is distributed proportionally to income before tax. Table 13 provides such a comparison for the tax system as a whole; but as noted before, lines (7) through (9) of that table present only a rough approximation to differential incidence. The results are based on the assumption that the same income *before* tax applies for both tax systems, and this is hardly an acceptable simplification.

TABLE 13

MEASURE OF DIFFERENTIAL INCIDENCE: ALL LEVELS OF GOVERNMENT COMBINED *

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Estimated Actual Distribution								
(1) Tax payments in millions of dollars	1,052	3,366	7,523	9,194	6,834	8,815	20,552	57,344
(2) Percentage of tax payments	1.8	5.9	13.1	16.0	11.9	15.4	35.8	100.0
(3) Tax payments as per cent of income	28.1	24.3	25.9	26.1	26.0	27.6	36.3	29.2
Hypothetical Proportional Distribution								
(4) Tax payments in millions of dollars	1,093	4,039	8,469	10,268	7,665	9,319	16,490	57,344
(5) Percentage of tax payments	1.8	7.0	14.8	17.9	13.4	16.3	28.8	100.0
(6) Tax payments as per cent of income	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
Differential Distribution								
(7) (1) – (4)	– 41	– 673	– 946	– 1,074	– 831	– 504	+ 4,062	.....
(8) (2) – (5)	– 0.1	– 1.1	– 1.7	– 1.9	– 1.5	– 0.9	+ 7.0	.....
(9) (3) – (6)	– 1.1	– 4.9	– 3.3	– 3.1	– 3.2	– 1.6	+ 7.1	.....

* Standard assumptions throughout. Lines (1) to (3) are taken from Table 6. Line (4) is obtained by allocating the total of $57,344 million according to distribution patterns shown in line (11) of Table 6. A similar procedure may be applied to obtain the respective hypothetical distributions for the Federal or state-local taxes.

Note: Details do not necessarily add to totals because of rounding.

Lines (1) through (3) repeat the estimated actual distribution of tax payments as shown in lines (3), (6), and (9) of Table 6. Lines (4), (5), and (6) show what the pattern of tax payments would have been had the same yield been distributed proportionally. Lines (1) and (4) show the dollar amounts of the tax; lines (2) and (5),

the percentage distribution of the tax; and lines (3) and (6), the tax as a per cent of income. Lines (7), (8), and (9) indicate the differential between the two systems, obtained by deducting the reference distribution from the actual distribution.

It is apparent that spending units with incomes up to $7,500 would bear a heavier tax load under a proportional tax system than under the present distribution. Spending units in the top income bracket, on the other hand, would bear a smaller tax load under a proportional system.

IV. TESTING THE SIGNIFICANCE OF ALTERNATIVE ASSUMPTIONS

The distribution of tax payments presented in the preceding section was based on what appears to us the "most likely" set of assumptions. However, these assumptions involve highly speculative judgements and we do not wish, in any way, to be dogmatic about them. In order to obtain some notion of the weight carried by the choice of one or another hypothesis and to accommodate the reader whose ideas of "most likely" differ from ours, we now turn to the distribution of tax payments under a number of alternative hypotheses.

1. *Corporation Income Tax*

The testing of alternative assumptions is most important and interesting with regard to the corporation income tax. Not only does this tax contribute a substantial portion of the yield, but its incidence has also been subject to much controversy. As shown in Table 3, six cases are considered. They combine three shifting assumptions with two treatments of retained earnings and the share of tax falling thereon.

The assumptions applying to each of the six cases are listed in Table 3, and the resulting distributions of corporation tax payments are shown in Table 14. In lines (1) to (6) of Table 14 corporation tax payments are given as a percentage of income. As shown in the last column, total corporation tax payments as a percentage of total income differ for each case. Whereas cases A, C, E, and F account for the entire tax yield, the part of the tax falling on retained earnings is disregarded in cases B and D. These cases, therefore, show a lower average level of rates. Further differences in average rate level arise because taxes paid out of retained earnings, as well as retained earnings after tax, are imputed to the shareholders' income in cases A, C, and E, but not in cases B, D, and F. When comparing the tax distributions for the various cases, the reader should keep in mind that there is a difference in the average level of effective corporation tax rates, as well as in the degree of progression or regression over various parts of the income range.

For this reason, a comparison of the results obtained under the various assumptions is difficult. It is facilitated in some respects by reference to the corresponding percentage distributions of corporation tax payments as shown in lines (7) to (10) of Table 14.[1]

[1] As will be seen from Table 14, the distributions are similar for cases C and D and for E and F. This is obvious in the case of E and F, because the entire tax is assumed to be shifted forward. Distributions are similar for C and D because the additional tax, accounted for in C, is distributed in the same way the tax on dividends is distributed in both C and D. The distributions are dissimilar for A and B. While the same shifting assumptions apply in both cases, the inclusion of the tax on retained earnings in A raises the fraction of the total that is allocated according to the dividend pattern over that of case B.

These distributions may be compared without reference to differences in the various yield totals accounted for; however, the comparison thus provided is somewhat defective because it disregards the imputed income aspect of the problem.

TABLE 14

DISTRIBUTION OF CORPORATION TAX PAYMENTS FOR ALTERNATIVE ASSUMPTIONS

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Corporation Tax Payments as Per Cent of Income *								
(1) Case A (standard)	7.3	5.1	4.6	4.5	4.4	4.6	11.3	6.6
(2) Case B	6.2	4.5	4.1	4.0	3.8	3.6	6.1	4.5
(3) Case C	3.7	2.1	1.5	1.6	1.8	2.9	16.3	6.4
(4) Case D	1.2	.7	.5	.5	.6	.9	6.9	2.1
(5) Case E	13.5	8.8	8.1	7.7	7.2	6.6	4.4	6.8
(6) Case F	13.5	9.0	8.2	7.9	7.3	6.8	5.5	7.3
Per Cent of Corporation Tax Payments Contributed *								
(7) Case A (standard)	2.1	5.5	10.3	12.2	9.0	11.3	49.4	100.0
(8) Case B	2.7	7.5	14.5	17.1	12.3	13.8	32.1	100.0
(9) Cases C and D	1.1	2.3	3.4	4.3	3.7	7.3	77.9	100.0
(10) Cases E and F	3.7	9.3	18.1	20.9	14.5	16.1	17.4	100.0
Total Tax Payments as Per Cent of Income †								
(11) Case A (standard)	28.1	24.3	25.9	26.1	26.0	27.6	36.3	29.2
(12) Case B	28.1	24.2	25.9	26.1	25.9	27.6	39.2	29.3
(13) Case C	24.0	20.9	22.5	22.9	23.0	25.5	39.8	28.3
(14) Case D	22.7	20.1	22.0	22.3	22.4	24.6	38.9	26.5
(15) Case E	34.6	28.4	29.8	29.7	29.1	30.1	31.9	30.3
(16) Case F	36.0	29.0	30.3	30.2	29.7	31.1	40.0	32.6

* Includes Federal corporation tax only.

† Includes all taxes and all levels of government. Based on standard payroll tax assumptions.

Note: Details do not necessarily add to totals because of rounding.

1. Let us first compare the results of the two alternative *shifting assumptions* with those of the standard assumption used in Case A. For the purpose, let us consider only those cases in which retained earnings and the tax thereon are allowed, that is, cases A, C, and E. Lines (1), (3), and (5) show tax payments as percentage of income for these three cases. Since the average effective rates shown in the last column of Table 14 are rather similar, the comparison may be drawn largely in terms of effective rates.

In Case C the total payment is assumed to come out of profits. The effective rate curve follows the *U* shape found to prevail in Case A under the standard assumption. Indeed, the initial element of regression is somewhat stronger than in the standard case, especially when moving from the second to the third bracket.[2] This is

[2] According to our definition (see note 2, section III), the initial element of regression in line (3) of

so because dividend receipts as a percentage of income fall off more sharply at the lower end of the income scale than do expenditures as a percentage of income. As in Case A, there follows a proportional middle range, but progression seems to make a somewhat earlier appearance. Most important, the degree of progression at the upper end of the scale is considerably sharper than in the standard case. Whereas the effective rate paid in the highest bracket under Case C is much above that paid in the standard case, the effective rate paid by all other brackets is considerably less. The same picture is obtained also by comparing lines (7) and (9). Whereas spending units in the top bracket contribute 78 per cent of the yield total in Case C, they contribute only 50 per cent in Case A.

Case E, where the total corporation tax payment is assumed to fall entirely on consumers, follows the excise pattern and is regressive throughout. Accordingly, the effective rate is much higher at the bottom and much lower at the top of the income scale than in Case A. The contribution of spending units in the top bracket, in this case, is reduced to 17 per cent, as against 50 per cent under the standard assumption.

It is apparent from these comparisons that the application of alternative shifting assumptions results in drastically different distributions of the tax payment. The corporation tax, it appears, is an altogether different proposition when one shifting assumption is made instead of another.[3] Moreover, since the corporation tax carries considerable weight in the yield total, the resulting distributions for the revenue structure as a whole are also significantly different for the different assumptions. This may be seen by comparing lines (11), (13), and (15) of Table 14. While the general *U* shape of the effective rate schedule continues to apply in all cases, it is somewhat more marked in Case C than, for example, in Case E.

Whether the reader will consider these divergent results as seriously invalidating the picture presented in the preceding section depends on his views regarding shifting. Even though he may not agree with the assumptions underlying our standard case, the reader should bear in mind that Cases C and E represent extreme and unlikely assumptions.[4]

Table 14 is stronger than in line (1) because the ratio of 3.7 to 2.1 is larger than the ratio of 7.3 to 3.1.

[3] It is evident from the distributions shown in lines (2) and (16) of Table 1 that differences in assumptions with regard to forward as against backward shifting are of rather minor importance. The important factor is how much of the tax is shifted and how much falls on profits.

[4] The reader may wish to consider alternative shifting assumptions as follows:

Case 1.—Let us assume that he wishes to consider retained earnings and the tax on these, as in the standard case, but wishes to change shifting assumptions. He may then redistribute the total shown in the last column of Table 8 to suit his preferences and then allocate the new dollar totals by brackets on the basis of lines (9), (10), and (11) of Table 8. He may then obtain a new line (4) in Table 8 by adding vertically.

This new line (4) may then be expressed as a percentage of the income shown in line (10) of Table 6. The results obtained will not be quite correct, however, as these income figures provide for imputations which will differ from those properly applied under other assumptions.

In order to obtain the appropriate income, the reader may take the difference between his allocation into line (3) of Table 8, added horizontally, and the standard case allocation of $6,998 million. This difference will then be allocated by income brackets in accordance with the percentage distribution shown in line (11) of Table 8. If the allocation to dividends is greater than in the standard case, the bracket distribution thus obtained equals the additional imputed income and is added to the standard case income dis-

2. Let us now consider the differences which result from varying our *assumptions regarding the treatment of retained earnings* and of the tax thereon. To bring out this aspect of the problem, let us hold the shifting assumption constant and compare Cases A and B, C and D, and E and F.

For Cases A and B, i.e. the standard shifting assumption, the results are shown in lines (1) and (2) of Table 14. Since the yield total accounted for in Case A is larger than in Case B, the average level of effective rates is accordingly higher. However, the degree of regression shown at the beginning of the scale is rather similar in the two cases, as is the proportional middle range. The only significant difference in the distribution of payments appears to be the flattening of progression at the upper end of the income scale in Case B. This reflects disregard of the tax on retained earnings. The same may also be seen by comparing lines (7) and (8), which show the percentage of yield contributed by spending units in the top bracket to be considerably smaller in Case B than in Case A.

Cases C and D, where the entire tax is assumed to fall on profits, involve sharply different yield totals and hence sharp differences in the average level of effective rates. Since the percentage distribution of tax payments as shown in line (9) is the same for both cases, the difference in the pattern of progression and regression is due entirely to the difference in the imputation of income. Leaving aside the difference in the average level of effective rates, we find the general pattern of rates to be very similar for the two cases. The only significant difference is the lesser degree of progression at the top of the income scale which arises in Case D. This may be expected since disregard of the retained earnings reduces tax liabilities by a greater fraction than income before tax.

Cases E and F, finally, allow for complete forward shifting. Here the average levels of effective rates are more nearly comparable. Again the differences in effective rate pattern are due entirely to differences in income imputation, the percentage distributions of tax payments being the same for both cases. As will be seen from a comparison of lines (5) and (6) of Table 14, both cases result in a regressive rate structure throughout the income scale, the degree of regression being slightly more pronounced in Case E, where retained earnings are imputed.

On the whole, it appears that the differences in the pattern of effective rates arising from the change in the treatment of retained earnings and of the

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tribution shown in line (10) of Table 6. If the allocation to dividends is smaller than in the standard case, the bracket distribution must be deducted.

Case 2.—Now assume that the reader wishes to disregard retained earnings and the tax on them. In this case only a smaller yield total will be accounted for. Suppose that $6,920 million is assumed to be shifted forward or backward and $6,000 million to fall on profits. Using the 3:7 ratio between dividends and retained earnings, $1,800 million of this $6,000 million falling on profits is taken to fall on dividends and is substituted for $6,998 million in line (3) of Table 8, the total being reduced correspondingly from $12,920 million to $8,720 million. On this basis a new line (4) of Table 8 is obtained as in Case 1.

Again this may be related to income as shown in line (10) of Table 6, but this will be quite unsatisfactory. In order to obtain the correct income, line (10) of Table 6 must be adjusted. This line allows for imputation of $13,200 million of retained earnings, plus $6,988 million of tax on profits. Imputation in the present illustration should equal $1,800 million. Thus the difference, or $18,398 million, should be allocated according to line (11) of Table 8 and be deducted from line (10) of Table 6.

tax thereon are not very significant; certainly, they are much less significant than those arising from the variation of shifting assumptions. The difference is largely one of average rate level and merely expresses the fact that different yield totals are accounted for under the two procedures.

2. *Excise Taxes*

As noted in section II, the allocation of excises, wherever possible, was made in accordance with expenditures on specific consumption categories. Only that part of the excises which could not be allocated in this fashion was distributed in accordance with the pattern of total consumer expenditures. This general pattern, as shown in line (2) of Table 1, was obtained directly from the S.R.C. data, whereas the specific expenditure patterns had to be derived from a number of B.L.S. surveys. Since the latter derivations may involve a considerable margin of error, it seemed desirable to compare the results obtained by use of the detailed data with the distribution which results if all excises are allocated in accordance with the pattern of total consumer expenditures. The alternative results, in this case, reflect differences in estimating procedure rather than in shifting assumptions. The results are shown in Table 15, where the two excise tax distributions are compared. It appears that the element of regression at the bottom of the scale is somewhat sharper if the general expenditure pattern is used throughout. However, the over-all distribution of excise payments is very similar for the two cases. Similar conclusions apply under either method.

TABLE 15

DISTRIBUTION OF EXCISE TAX PAYMENTS FOR ALTERNATIVE SPENDING PATTERNS: TAX PAYMENTS AS PERCENTAGE OF INCOME

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Detailed Expenditure Pattern *								
Federal	6.0	5.2	4.8	4.8	4.2	4.0	2.6	4.0
State and local	5.8	3.9	3.6	3.6	3.4	3.1	2.0	3.1
Total	11.8	9.1	8.5	8.4	7.6	7.2	4.6	7.1
General Expenditure Pattern †								
Federal	8.2	5.3	4.9	4.6	4.3	4.0	2.4	4.0
State and local	6.3	4.1	3.8	3.6	3.3	3.1	1.9	3.1
Total	14.5	9.4	8.7	8.2	7.7	7.1	4.3	7.1

* Allocated according to pattern shown in Table 4. This allocation used for excise distribution in all other tables.

† Allocated wholly according to line (2), Table 1.

Note: Details do not necessarily add to totals because of rounding.

3. *Payroll Taxes*

The distribution of payroll tax payments, shown in section II, was based on the assumption that two-thirds of the employer contribution is shifted forward to consumers, whereas the remainder, as well as the entire employee contribution, is taken to fall on the wage earner. In Table 16 the estimated distribution of payments is shown for two alternative assumptions. It is assumed in Case B that the entire tax falls on wages and in Case C that the entire tax falls on the consumer.

As would be expected, the distribution is more regressive at the lower end of the income scale in Case C than in the standard case. The distribution is progressive at the lower end of the income scale in Case B, with regression appearing only above the $4,000 level. While these differences in the distribution of payments are obviously significant, the payroll tax contribution to the yield total was relatively slight in 1948, so that the over-all picture is not affected greatly by the variation of payroll tax assumptions. This may be seen in lines (7) to (9) of Table 16. With the growing weight of payroll taxation in the future, uncertainty regarding payroll tax shifting will be of increasing importance. In time it may create a difficulty comparable to that presented by the corporation tax.

TABLE 16

DISTRIBUTION OF PAYROLL TAX PAYMENTS FOR ALTERNATIVE ASSUMPTIONS

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Payroll Tax Payments as Per Cent of Income								
(1) Case A (standard)	3.0	2.5	3.9	3.0	2.3	1.4	0.5	2.0
(2) Case B	2.2	2.6	4.4	3.6	2.4	1.1	.1	2.0
(3) Case C	4.6	2.7	2.5	2.4	2.2	2.0	1.2	2.0
Percentage of Payroll Tax Payments Contributed								
(4) Case A (standard)	2.8	8.7	28.2	26.7	14.8	11.4	7.4	100.0
(5) Case B	2.1	8.9	32.0	31.5	16.0	8.7	.7	100.0
(6) Case C	3.9	9.3	18.1	20.6	14.4	16.1	17.5	100.0
Total Tax Payments as Per Cent of Income *								
(7) Case A (standard)	28.1	24.3	25.9	26.1	26.0	27.6	36.3	29.2
(8) Case B	27.3	24.4	26.4	26.7	26.2	27.2	35.9	29.2
(9) Case C	29.3	24.5	24.5	25.4	25.9	28.2	37.1	29.2

* Standard corporation tax assumptions.

Note: Details do not necessarily add to totals because of rounding.

4. *Property Tax*

Certain alternative assumptions for the property tax remain to be examined. As set forth in Table 5, these relate to the allocation of the yield total among different shifting components, rather than to the shifting assumptions appli-

cable to each of these components. In the allocation of the yield total for Case B, doubtful allocations were resolved in each instance so as to place as large a part of the burden upon the upper income groups as appeared reasonably possible, while the opposite policy was followed in determining the allocations for Case C.[5]

is more pronounced than in the standard case. This reflects the allocation of a smaller fraction of the total yield to the land component. As a result, the fraction distributed according to the pattern of dividend receipts and rental income is reduced, while the fraction distributed according to the excise pattern is increased.

TABLE 17

DISTRIBUTION OF PROPERTY TAX PAYMENTS FOR ALTERNATIVE ASSUMPTIONS

Item	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Property Tax Payments as Per Cent of Income *								
(1) Case A (standard)	5.36	3.89	3.42	3.20	2.93	2.78	2.74	3.08
(2) Case B (progressive) ...	5.28	3.71	3.25	3.07	2.84	2.76	3.02	3.08
(3) Case C (regressive)	5.47	4.18	3.63	3.34	3.01	2.82	2.40	3.08
Percentage of Property Tax Payments Contributed								
(4) Case A	3.31	8.89	16.39	18.58	12.68	14.64	25.51	100.0
(5) Case B	3.26	8.46	15.56	17.82	12.28	14.52	28.09	100.0
(6) Case C	3.38	9.54	17.39	19.40	13.05	14.85	22.38	100.0
Total Tax Payments as Per Cent of Income †								
(7) Case A	28.08	24.30	25.91	26.11	26.00	27.59	36.35	29.16
(8) Case B	28.00	24.12	25.74	25.99	25.91	27.57	36.63	29.16
(9) Case C	28.18	24.59	26.12	26.26	26.09	27.63	36.01	29.16

* Includes state and local property tax payments.

† Includes all taxes and all levels of government. Based on standard corporation and payroll tax assumptions.

Note: Details do not necessarily add to totals because of rounding.

The results are shown in Table 17. As may be seen from a comparison of lines (1) to (3), resulting differences are very slight. The degree of regression at the lower end of the income scale is about the same for all cases. The standard case, as noted before, is regressive throughout. In Case B some slight progression appears at the upper end of the scale. In Case C regression

Except for the appearance of some degree of progression at the upper end of the income scale in Case B, it appears that variations in property tax payments, introduced by the use of alternative shifting assumptions, are very slight. The inadequacy of the data on which to base the allocation of the total property tax yield among specific components does not seem to do serious damage to the reliability of the estimated distribution of property tax pay-

[5] For detailed assumptions see appendix notes to Table 5.

ments. As shown in lines (7) to (9) of Table 17, the distribution of total payments is not seriously altered by the use of alternative property tax assumptions.

This concludes our analysis of alternative assumptions. The reader may now combine the effective rate schedules for particular taxes obtained under any of the assumptions in Tables 14 to 17 and thus derive alternative over-all schedules of tax payments comparable to those shown in Tables 6 and 7. Drastic differences in the over-all picture, however, will arise only from rather sharp changes in the shifting assumptions with respect to the corporation tax. The experimentation with alternative methods, except for this tax, appears to strengthen rather than weaken the confidence which may be placed in the general pattern of tax distribution under the standard case.

5. *Comparison with Earlier Studies*

Finally, our results may be compared briefly with the earlier Colm-Tarasov estimate for 1938-39 and with the Adler estimate for 1946-47.[6] A comparison of effective rates for the combined Federal, state, and local tax systems for the three studies is shown in Chart III and Table 18.

(*a*) *Differences in Level of Effective Rates.*—The average effective rates for the three studies are 20.2 per cent for the Colm-Tarasov, 24.2 per cent for the Adler, and 29.2 per cent for the present study (standard assumptions). This wide divergence results from the use of both different tax totals and income bases. The difference between our average effective rate and that of the Colm-Tarasov estimate needs no detailed explanation, as it reflects largely the higher level of tax rates in the later period. But a reconciliation with the Adler ratio is required.

Our tax total amounts to $57.3 billion as against $49.5 billion for the Adler study. This is due in part to differences in the yield total for the two time periods and in part to the fact that the tax total used in this study includes accrued income taxes whereas the Adler figure is based on collections. Part of the difference in the income base is again due to the difference in time period, but the remainder is due to a difference in the underlying sources of income estimate. The Adler study uses the estimate for personal income by the Department of Commerce, whereas the present study uses the S.R.C. income total. In order to facilitate a comparison with the Adler study, our effective rate schedule was recomputed, using the Department of Commerce income estimate. On this basis, the average effective rate for our standard case is reduced from 29.2 per cent to 24.7 per cent. In Chart III and Table 18 our result for the standard case is shown on both the S.R.C. and the Department of Commerce income base. As far as imputations to income are concerned, there appear to be no major differences between Adler's method and ours.

(*b*) *Difference in Shape of Effective Rate Curves.*—The shape of the effective rate curve, as noted previously, depends considerably upon the shifting assumptions made with regard to the

[6] Helen Tarasov, *Who Does Pay the Taxes?* (Supplement IV, *Social Research*, 1942). Reference is to the revised figures for 1938-39 as given on p. 5. Also, see John Adler, "The Fiscal System, the Distribution of Income, and Public Welfare," in Kenyon E. Poole (ed.), *Fiscal Policies and the American Economy* (New York: Prentice-Hall, Inc., 1951).

corporation income tax. As the other studies assume that there is no shifting of this tax, they should be compared for statistical compatibility with our no-shifting assumption (Case C) rather than with our standard case. Accordingly, Case C, adjusted to the Commerce income base, is also included in the chart and table. The average effective rate for Case C, adjusted to Department of Commerce income, is 24.0 per cent, or about the same as Adler's.

TABLE 18

COMPARISON OF EFFECTIVE TAX RATES FOR VARIOUS STUDIES

(In per cent)

Study	Spending Unit Income Brackets (Thousands of dollars)							
	Under 1	1–2	2–3	3–4	4–5	5–7.5	7.5 and over	Total
Colm-Tarasov *	18.0	17.5	17.4	17.7	18.2	18.7	32.7	20.2
Adler †	19.6	15.1	17.3	17.7	22.9	24.2	36.3	24.2
Case A, unadjusted	28.1	24.3	25.9	26.1	26.0	27.6	36.3	29.2
Case A, adjusted to commerce income	23.6	20.3	21.6	21.8	21.7	23.1	31.7	24.7
Case C, adjusted to commerce income	20.2	17.5	18.8	19.1	19.3	21.4	35.1	24.0

* For 1938–39. See Helen Tarasov, *Who Does Pay the Taxes?* (Supplement IV, *Social Research*, 1942), p. 5.

† For 1946–47. See John Adler, "The Fiscal System, the Distribution of Income, and Public Welfare," in Kenyon E. Poole (ed.), *Fiscal Policies and the American Economy* (New York: Prentice-Hall, Inc., 1951).

A study of Chart III and Table 18 shows a fair degree of similarity between the patterns of Case C and the Colm-Tarasov study. The fact that progression in our case begins sooner reflects the downward extension of the personal income tax; the higher level of rates through the middle income brackets similarly reflects the increased severity of personal income taxation.

Adler's effective rate pattern, on the other hand, shows marked difference from that of Case C. This is surprising as the two periods considered and the two tax structures involved are rather similar. The source material and the description of methods presented in the Adler study do not permit a detailed and careful comparison, but it appears that the differences in the pattern for the tax system as a whole are due to numerous differences in the distribution of particular taxes. One major source of divergence appears to result from differences in the consumption patterns used. The Adler study appears to rely on a smaller sample of B.L.S. data. Also our study uses a general pattern of consumer expenditure, derived from the S.R.C. data, while the Adler study appears to be based on B.L.S. data only. This may well account for the fact that the pattern shown in the Adler study is distinctly more regressive at the bottom of the scale. The greater progressivity of the Adler schedule over the $3,000 to $6,000 income range may reflect the allo-

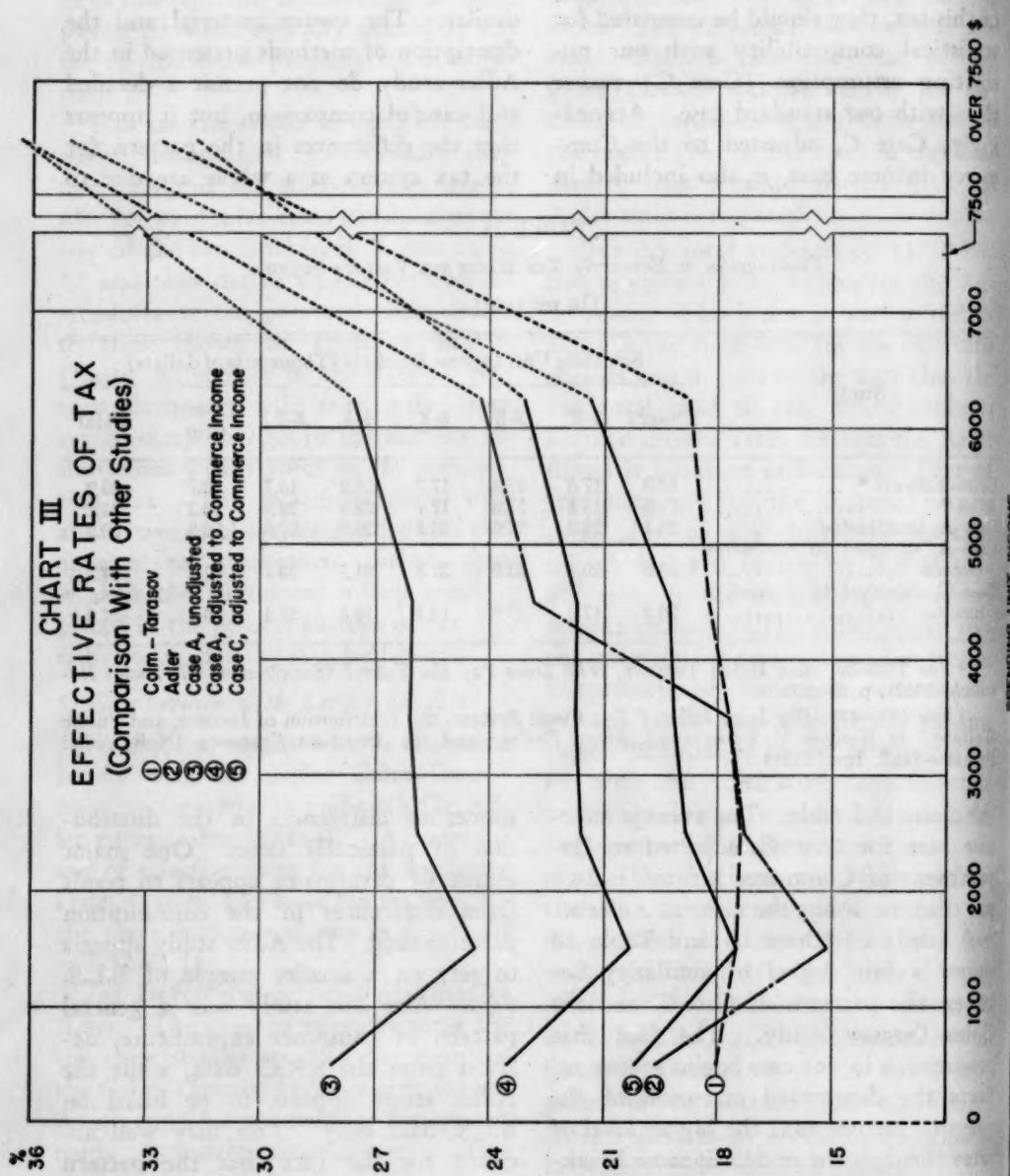
CHART III
EFFECTIVE RATES OF TAX
(Comparison With Other Studies)
Colm – Tarasov
Adler
Case A, unadjusted
Case A, adjusted to Commerce Income
Case C, adjusted to Commerce Income
①②③④⑤
%
36
33
30
27
24
21
18
15
0
1000
2000
3000
4000
5000
6000
7000
7500
OVER 7500 $
SPENDING UNIT INCOME
EFFECTIVE RATE (TAX AS PER CENT OF INCOME)

cation of $4 billion of "miscellaneous" taxes on a proportional basis. Many of these taxes are of a regressive nature and have in our study been allocated according to specific expenditure patterns.

6. *Conclusion*

In view of the above results, we may reappraise briefly the validity of the incidence picture as presented in section III. The estimated distribution of personal income tax liabilities should be rather accurate. While the assumption that there is no shifting of such liabilities may be open to debate, such shifting as occurred was hardly on a large scale; moreover, there is no basis on which to appraise the possible magnitude of such adjustments. The excise distribution is based on expenditure patterns which in turn had to be derived from rather incomplete B.L.S. data; however, the results obtained by using the more reliable S.R.C. pattern for total consumer expenditures are rather similar. This suggests, although it does not prove, that the errors involved in the excise allocation are not of major importance.

The distribution of corporation tax payments provides much the greatest difficulty; and it is evident that the shifting assumptions chosen will affect considerably the shape of the final pattern of tax distribution. A further difficulty arises from the inadequacy of data regarding the distribution of dividend income. The property tax problem is complicated by the dearth of data for the allocation of shifting components. However, experimentation with alternative allocations shows less difference in results than might be expected. Hence, the outcome seems fairly reliable. The allocation of payroll taxes again involves difficulties with regard to shifting assumptions; but the differences resulting from alternative assumptions are less serious than for the corporation tax, and the over-all weight of the payroll tax is much less. Finally, a major difficulty of interpretation arises at the bottom of the income scale, owing to the heterogeneous composition of the low spending unit income brackets. At the upper end of the scale no detailed breakdown is possible, since no adequate data for detailed income brackets in excess of $7,500 are available.

While these difficulties must be kept in mind, it appears that the results are fairly adequate, *if* we are satisfied to accept the simplified framework of this analysis. But this is a big *if*. The results become much less satisfactory when we recognize that any statistical measure of tax incidence is subject to the conceptual limitations set forth in the introductory section.

APPENDIX

1. *Notes on Table 1*

Data for lines (1) through (6) were derived from the "1948 Survey of Consumer Finances," by the Survey Research Center, University of Michigan. Most of the data were published in the *Federal Reserve Bulletin*, June through September, 1949, but some unpublished data were obtained from the S.R.C. When the data shown are carried to more decimal places than appear in the published sources, such additional information was obtained directly from the S.R.C.

Line 1: *F.R.B.*, July, 1949, p. 780.

Line 2: Determined as a residual. The S.R.C. percentage distributions for money income, savings, and

Federal personal income tax liability (S.R.C.) were converted into dollar distributions, using totals of $176.0, $12.0, and $16.0 billion respectively (S.R.C.). Dollar savings and tax liabilities for each income bracket were deducted from dollar income, and a further deduction was made for state personal income tax liabilities estimated on the basis of the Wisconsin law. The residual was then reconverted into a percentage distribution.

Line 3: A percentage distribution of expenditures for the purchase of automobiles and a percentage distribution of expenditures for the purchase of all other durable goods were obtained directly from the S.R.C. These were combined into a weighted average, the weights being equal to $11.5 billion for autos and $7.5 billion for other durables (*F.R.B.*, June, 1949, pp. 647 and 650). The S.R.C. distributions were furnished by deciles of spending units and had to be converted into distributions by spending unit income brackets as used in this study.

Line 4: The S.R.C. data do not show a percentage distribution of housing expenditures by home owners. They do show housing expenditures of home owners as a percentage of their incomes (*F.R.B.*, September, 1949, p. 1048). Since this information was given only for three broad income brackets, the first step was to estimate a corresponding distribution for our seven income brackets. Step number two was to estimate the dollar income distribution of home owners. Use was made of S.R.C. data showing the percentage of spending units in each income bracket who own their homes (*F.R.B.*, September, 1949, p. 1040). By applying these percentages to the dollar distribution of money income (see explanation to line 2 above), a dollar distribution of money income by home owners was obtained. Step three was to multiply this money income in each income bracket by the percentage of income spent on housing, and thus to obtain a dollar distribution of housing expenditures by home owners from which the percentage distribution shown in line 4 could be derived.

Line 5: The method of derivation was identical with that for line 4, except that data on renters rather than home owners were used. See the *F.R.B.*, September, 1949, p. 1040, for the percentage of renting families in each income bracket, and p. 1050 for the percentage of income spent for housing by renters. Note that for both lines 4 and 5 the original data are given for family units. Since nine-tenths of the family units are single family spending units, the uncorrected application of this data to a spending unit distribution involves no significant error.

Line 6: *F.R.B.*, August, 1949, p. 910.

Lines 7 through 14: To properly allocate the forward-shifted portions of various taxes it was necessary to determine what proportion of expenditures for certain consumption items was made by each income class. The expenditure pattern developed in lines 7 through 14 is based on consumer budget studies conducted by the U. S. Department of Labor during the years 1946 through 1948. The original data appear in (a) "Consumer Spending: Detroit, Denver, and Houston, 1948," *Monthly Labor Review*, December, 1949; (b) "Family Income and Expenditures in 1947, Washington, Richmond, and Manchester," *Monthly Labor Review*, April, 1949; and (c) "Survey of Prices Paid by Families, Milwaukee, Savannah, and Scranton," an unpublished report by the U. S. Department of Labor. These studies conducted during the years 1946 through 1948 were selected in preference to the more comprehensive studies undertaken in 1941 because they are more likely to accurately reflect the changed price and income relationships of the postwar years. Rural families are not included in the postwar studies. Some comparison of rural and urban spending habits, however, reveals no systematic differences for which adjustments could be readily made.

No attempt was made to correct for the discrepancy arising out of the fact that this study is conducted in terms of spending units whereas the consumer budget studies surveyed family units. Nor was any attempt made to correct for the fact that although single person spending units are included in the S.R.C. distribution of spending units, the B.L.S. provides useful information only about family units of two or more persons. Any error introduced by this nonidentical treatment was not deemed to be sufficiently significant in this context to warrant working out a complicated conversion system.

Since a single consumption pattern for the entire United States is required, the data from these budget studies were consolidated into a single pattern. For this purpose the size of each of the cities was determined according to the 1940 census. Each city pattern was then given a weight equal to the weight carried by a city of such size in the consumer price index prepared by the B.L.S. Since the size distribution of cities included in the B.L.S. surveys provided a fairly representative coverage of the range of cities included in the index, this weighting system appears to be fairly adequate. It is evident, however, that the estimated national expenditure pattern suffers from the fact that it was based on a rather small sample.

Line 15: No direct information on the distribution of dividend income by spending units is available. An attempt was made to translate the 1947 dividend distribution by taxable income brackets (Treasury Press Service Release S-2171, November 25, 1949) into a similar distribution by spending unit income brackets. Since the Treasury distribution for 1948 was not available at the time of writing, it was necessary to assume that the distribution for 1948 would be similar to that for 1947.

Step number one was to allocate the money income received in each spending unit income bracket to the various brackets of taxable income in which it comes to be declared. This involves making allow-

ance for income splitting and other factors and is to a considerable extent a matter of judgment.

The second step was to obtain from this cross-classification the total spending unit income falling into each taxable income bracket, and to derive for each taxable income bracket a percentage distribution of the total by spending unit income brackets.

Step three was to distribute dollar dividend payments by taxable income brackets in accordance with the 1947 pattern. The total of dividend payments going to each taxable income bracket was then distributed among spending unit income brackets contributing to the taxable income bracket in accordance with the pattern developed in step two.

The final step was to aggregate for each spending unit income bracket the dividend payments thus allocated to that bracket and from this to derive a percentage distribution of total dividend receipts by spending unit income brackets.

Line 16: On a basis of *Statistics of Income* data (Treasury Release S-2171) it is estimated that between 85 per cent and 90 per cent of income below $5,000 represents wage and salary payments, and that 67 per cent and 37 per cent respectively would be appropriate estimates for the two upper income brackets used in this study. It was assumed, therefore, that 87.5 per cent of incomes up to $5,000 consisted of wages and salaries. An estimate of wage and salary income by income brackets was obtained by multiplying these percentages by the money income for each bracket. The figure for each bracket was then converted to a percentage of the total of all brackets.

Line 17: The percentage of spending units in each income class that derive their income from employment covered by social security legislation was estimated using *Low Income Families and Economic Stability*, by the Joint Committee on the Economic Report, 1949, p. 86. Those units whose principal earner was clearly not covered by social security (e.g., retired, farmers, etc.) were eliminated. The percentage of units remaining multiplied by the wage and salary income in each income bracket (see line 16) resulted in a distribution of covered wage and salary income by income brackets. The figure for each bracket was then converted to a percentage of total for all brackets.

In view of substantially higher rates applicable to railroad retirement and Civil Service retirement plans these were treated separately and assigned as though the unit contained a single earner. Government employees were assumed to bear full burden of Federal retirement plans.

Line 18: Rental income was determined by translating the 1947 rental income distribution by taxable income brackets (Treasury Press Service Release S-2171, November 25, 1949) into a similar distribution by spending unit income brackets. The method was analogous to that used in the determination of line 15.

2. *Notes on Table 4*

Excise taxes listed in Table 2 were assigned to specific consumption pattern items. The amounts so assigned were then allocated to spending units according to the consumption pattern developed in lines 7 through 14 of Table 1. The assignment of excises according to the consumption pattern classification is summarized in Table 19. Taxes such as those on food, alcohol, or tobacco are assigned directly to their corresponding items in the consumption pattern. Others involve more difficulty. For example, the automotive excises cannot simply be assumed to be borne by consumers in proportion to their expenditures on automotive transportation. A large part of the tax involves commercial vehicles. This portion of the tax becomes a cost of production to firms that use motor vehicles in their business. Thus, a part of the automotive excises appears in the price of nonautomotive products. It was estimated, after some consultation with the research departments of large automobile manufacturers, that 50 per cent of the automotive excises are subject to this sort of diffusion. The same ratio was used in the assignment of excises on electrical goods, insurance companies, and public utilities. The assignment of communication excises is the same as is made in studies by Mabel Newcomer (*Annals* of the American Academy of Political and Social Science, November, 1949, p. 56). These same studies suggested a basis for the apportionment of transportation excises. General sales taxes were distributed among appropriate consumption items in proportion to the relative importance of those items as a fraction of total consumer expenditures on taxed items. Customs duties, on the other hand, were distributed according to the general consumption pattern. It was assumed that 10 per cent of amusement taxes were paid by business firms. Although there is no evidence to support this, it seemed reasonable to recognize entertainment as a business expense.

3. *Notes on Table 5*

Let us first consider Case A, the standard case. Of total property taxes of $6,064 million, 80 per cent or $4,851 million, was assigned to real estate (line 9), and 20 per cent or $1,213 million was assigned to the personal property classification (line 16). This division is justified by the fact that the Bureau of Census shows that in 1940 the assessed value of real property was 80 per cent of the assessed value of all property (*1950 Economic Almanac*, NICB, p. 484); and that in 1948 in thirty-seven large cities the assessed value of real property constituted 81 per cent of the total (*Large City Finances in 1948*, City Finances; 1948, No. 3, Washington, D. C., September, 1949, p. 10, Table V). Further, the Department of Agriculture estimates that in 1948 farm real estate taxes were 85 per cent

of total farm property taxes (*1950 Economic Almanac*, NICB, p. 190).

The real estate component of the property tax, $4,851 million, was further divided into those parts falling on farms (lines 1 plus 2), business property (lines 3 plus 4), rented homes (lines 5 plus 6), and owner-occupied homes (lines 7 plus 8).

Of the $4,851 million tax on real property, $651 million was assumed to be a tax on farm land. This estimate is based on Department of Agriculture data (*1950 Economic Almanac*, NICB, p. 190). It was further assumed that two-thirds of the real estate tax on farm land falls on land and one-third on improvements. This is identical with the Tarasov estimate, and is substantiated by data in *Studies in Income and Wealth*, vol. 12, (NBER, 1946), p. 196. On this basis $434 million of the $651 million falling on farms was assigned to land (line 1), and the remainder, $217 million, was assigned to improvements (line 2).

After appropriate parts of the $4,851 million tax on real property had been assigned to farm, rented homes, and owner-occupied homes, there remained $965 million which was allocated to business property. This remainder of $965 million is simply a residual; no data are available for determining it directly. It was assumed that one-third of the real estate tax on nonfarm land falls on land itself and that two-thirds falls on improvements. This again is identical with the Tarasov estimate. Thus, $322 million was assigned to business land (line 3), and $643 million was assigned to improvements on business property (line 4).

Of the $4,851 million, $1,235 million was assumed to fall on rented homes. This estimate is consistent with S.R.C. data, which show that somewhat less

TABLE 19

ALLOCATION OF EXCISE TAXES BY CONSUMPTION PATTERN ITEMS

(In millions of dollars)

Excises by Industry	Assignment to Consumption Pattern Items									
	Tobacco	Auto Transport	Other Transport	Recreation	Food	Liquor	Housing	All Other	General Consumption Pattern	Total
Federal Taxes										
Alcohol	...	...	...	...	...	2,177	...	...	...	2,177
Tobacco	1,312	...	...	...	...	...	...	...	...	1,312
Automotive	...	548	10	...	82	...	...	...	639	1,279
Amusement	...	...	...	576	...	...	...	...	64	640
Transportation	...	53	100	...	...	...	...	...	457	610
Communication	...	...	...	...	...	...	170	...	342	512
Luxury	...	...	...	...	...	...	...	463	...	463
Electrical	...	...	...	...	...	...	133	...	132	265
Food	...	...	...	...	115	...	...	...	...	115
Other	...	...	...	...	...	...	...	...	129	129
Customs	...	...	...	...	...	...	...	...	410	410
Total	1,312	601	110	576	197	2,177	303	463	2,173	7,912
State and Local										
General sales	44	...	...	...	784	38	...	1,033	...	1,899
Automotive	...	994	...	...	...	...	...	...	995	1,989
Alcohol	...	...	...	...	...	545	...	...	...	545
Tobacco	365	...	...	...	...	...	...	...	...	365
Amusement	...	...	...	165	...	...	...	...	19	184
Insurance	...	...	...	...	...	...	...	101	101	202
Public utility	...	...	...	...	...	...	134	...	133	267
Other	...	...	...	...	...	...	...	...	642	642
Total	409	994	...	165	784	583	134	1,134	1,890	6,093

than 50 per cent of all homes are rented (*Federal Reserve Bulletin*, September, 1949, p. 1040), and that therefore the tax on rented homes should be less than on owner-occupied residences. It is also reasonable to presume that rented homes are less valuable than owner-occupied homes, since the former tend to be occupied by spending units in the lower income brackets (*ibid.*). The $1,235 million was then divided so that one-third or $412 million fell on land (line 5), and two-thirds or $823 million fell on improvements (line 6).

On the basis of an S.R.C. estimate, $2,000 million of the real property tax was assigned to owner-occupied homes (*F.R.B.*, September, 1949, p. 1046). Again one-third or $670 million was assumed to fall on land (line 7), and the remainder, $1,330 million, was assumed to fall on improvements (line 8).

The division of the tax on personal property among its several components presented the same sort of problem as did the division of the tax on real property. The task was complicated by the fact that even less information was available on which to base estimates of the proper breakdown.

Of the $1,213 million representing the tax on personal property, the Department of Agriculture estimates that $115 million was paid by farmers (*1950 Economic Almanac*, NICB, p. 190). There was no basis for determining how much of this $115 million was properly a tax on tangibles, and how much on intangibles. In the absence of information, an equal break of this amount between tangibles and intangibles seemed the best procedure.

The remainder of the $1,213 million tax on personal property was arbitrarily divided equally between business and individuals, $549 million being assigned to each. It was again assumed in each case that half the tax was on tangibles and half on intangibles. Thus $275 million was assigned to each of these categories (lines 10, 11, 14, and 15). The breakdown between tangibles and intangibles in the case of the tax on business firms is not important, since the entire tax is assumed to be shifted forward to consumers. On the other hand, the breakdown between business firms and individuals is important. Of the tax falling on individuals the part assigned to tangibles was assumed to be distributed on the same basis as the ownership of durable goods and the part assigned to intangibles to be distrbuted the same as liquid assets. This is a more progressive allocation than that for the portion of the tax assumed to fall on business firms.

Cases B and C, the progressive and regressive cases respectively, differ from the standard case in the assumptions regarding the distribution of the real property tax between rented homes and business property and in the distribution of the personal property tax between business firms and individuals. In addition, different assumptions are made regarding the amounts of real property tax assignable to land and improvements and in the amounts of the personal property tax assignable to tangibles and intangibles.

In the progressive case, Case B, $935 million of the property tax was assumed to fall on rented homes, and $1,265 million was assumed to fall on business property. In both instances 40 per cent was assigned to land and 60 per cent to improvements. Thus, of the $935 million falling on rented homes, $374 million was assigned to land (line 5) and $561 million to improvements (line 6). Of the $1,265 million falling on business property, $506 million was assigned to land (line 3) and $759 million to improvements (line 4).

Instead of dividing the residual part of the personal property tax equally between individuals and business firms as in the standard case, in the progressive case $350 million was allocated to business firms and $750 million was allocated to individuals. Of the $350 million falling on business firms, one-half or $175 million was assumed to fall on tangibles and one-half on intangibles (lines 10 and 11). Of the $750 million falling on individuals, 30 per cent or $225 million was assumed to fall on tangibles (line 14), and the remainder, $525 million, to fall on intangibles (line 15).

In the regressive case $1,535 million of the real property tax was assumed to fall on rented homes, while only $665 million was allocated to business property. In both instances only 20 per cent was assumed to be assignable to land and 80 per cent to improvements. The personal property tax was divided so that $750 million fell on business firms and only $350 million on individuals. Again, the part paid by business firms was divided equally between tangibles and intangibles. Of the $350 million paid by individuals, 70 per cent was assumed to fall on tangibles and 30 per cent on intangibles.

ALICE IN BUDGET-LAND

HERMAN C. LOEFFLER *

FEDERAL budget and appropriation practices have long since developed Alice-in-Wonderland overtones of unreality and confusion. They are badly in need of basic reforms which go much deeper than the recent recommendations of the Hoover Commission, sound and desirable as were the proposals of that group in this field.

The Commission concluded that the Federal budget is "an inadequate document, poorly organized and improperly designed." Four of its recommendations therefore proposed: (1) the use of performance budgets to emphasize work to be done rather than objects to be purchased, (2) an immediate survey of the appropriation structure to correct present diversity, (3) separation of current expenditures from capital outlays, and (4) Presidential authorizations to spend less than full appropriations if Congressional purposes can be carried out with lesser amounts. Other recommendations not bearing so directly on the conclusion quoted above include five proposals to strengthen the Bureau of the Budget, and four proposals (with various dissents) dealing mostly with better governmental accounting.

DEFECTS IN CURRENT PRACTICES

Appropriations Based on Obligations

The initial and traditional stages of preparation by the departments and agencies of their annual spending requests make good sense. The organization units formulate their desired work programs in the light of social, economic, political, and many other developments and needs. Wherever possible these programs are divided into proper work units. The work units are then multiplied by estimated costs per unit, thus developing proposed expenditures relative to the budget year.

But from here on, the Alice-in-Wonderland conditions start. The controlling financial statutes require that proposed expenditures be translated into so-called obligations, which up to very recently were the only basis for the traditional accounting controls to prevent overspending of appropriations. Obligations consist of the total dollar amounts required to make the arrangements which are necessary as a practical matter to accomplish a work program. They consist of the full commitments to

* The ideas expressed in this article by Mr. Loeffler are his own and not to be construed as those of the Senate Committee on Expenditures in the Executive Departments, with which he became associated as a professional staff member in early 1949. For years he was active in research work on problems of local government in New York, St. Louis, Boston, and other cities. Starting in 1941 he served eight years with the U. S. Bureau of the Budget, mostly as one of the Assistant Chiefs of its Fiscal Division.

obtain desired services by hiring people and to obtain commodities and other objects by the letting of short- or long-term contracts, usually limited by statute to a maximum life of three years.

The result of this requirement is that although the proposed work programs of a Federal agency may be identical for two successive years, the obligations requested of Congress as proposed appropriations to accomplish these programs may be quite different. Why? Assume that in the first of two identical annual work programs of a Federal agency for successive years, obligations were incurred to cover a relatively large number of two-year contracts in their entirety, and that in the following year few multi-year contracts were included because the expiring contracts were available from the prior year to supply required goods and services. Under this assumption the agency might have the same $10,000,000 work programs in both fiscal years 1949 and 1950, although requiring an appropriation of $12,000,000 for the first year as contrasted with an appropriation of only $8,000,000 for the second year. Under these circumstances, appropriations of course cease to indicate the scope of agency work programs.

This example is much simpler than the conditions existing in practice, particularly in those departments and agencies which carry on many construction projects for which three-year building contracts are frequent. In these cases computation of an annual appropriation requires that two deductions must first be made from the estimated amount of the actual annual construction to be accomplished, in order to adjust for those expenditures in the budget year which will be met from the unused portions of multi-year contracts awarded in the two prior years (unliquidated obligations carried forward) and still available for expenditure. Further, the appropriation for the proposed construction program must be increased by two additions in order to provide for expenditures occurring in the two subsequent years under the long-term contracts which are to be let in the budget year.

The upshot of these adjustments is that in determining the size of the appropriation for a given construction program, consideration must be given to work involved during a total period of five years. The amount of the appropriation may therefore give no indication whatever of the actual amount of work to be done in the fiscal year.

Expenditures Not Comparable with Appropriations

This Alice-in-Wonderland confusion is of course equally bad in connection with the actual expenditures under annual appropriations. As has been indicated, annual appropriations include, in addition to adjustments for carryovers between years, the total contracts to be awarded in the fiscal year, without regard to the longer period over which expenditures under those contracts may be spread before they are completed. The annual expenditures reported by an agency therefore have no relation to the year when the contracts were let or other obligations were incurred to obtain the necessary current deliveries.

Imagine trying to exercise sound judgment in preparing budgets under this theoretical background. Using the simple example already given, the

agency would report expenditures of $10,000,000 each in fiscal years 1949 and 1950. Since $12,000,000 was the first year's appropriation, the agency had presumably been very economical and had underspent its allowance. In the second year, however, it had supposedly broken the law and seriously overspent by the same amount. Of course, both of these conclusions are entirely incorrect.

In many agencies, annual appropriations provide only the annual salaries of those employed, plus quarters and small amounts for travel and the like, so that there is practically no carryover between years. The above difficulties are therefore either nonexistent or relatively inconsequential. In other agencies, however, notably those letting contracts for big building operations, the reverse will be true; very heavy carryover will occur between years because of the many multi-year contracts in effect. Other agencies will lie between these two extremes. The difficulty is that one never knows to what degree the annual expenditures reported for an agency are comparable with the appropriations voted for it.

Lack of Cohesion in Budget Document

As to this never-never land of fiscal planning and control under practical operating conditions, let me comment very briefly on the resultant serious problems for the annual Federal budget document. That huge tome of telephone directory size contains an immense amount of valuable data laboriously prepared after much discussion and planning by the Federal agencies and then gathered and reshaped by the Bureau of the Budget to fit into the President's program.

It is a fact of great importance to the whole democratic process that this large collection of very important financial material scares off many interested persons. Some of this negative reaction undoubtedly stems from the fact that the basic design of the budget document is so faulty. It starts with some 200 pages of Presidential Budget Message and summary tables, prepared quite exclusively on an expenditure basis so that the programs proposed in the budget may be fitted into economic and financial developments in national affairs of the present and near future.

Incredible as it may sound, that material is supported—of necessity under existing law—by over 1,000 pages of densely packed and unrelated detail on the obligation basis which must be used for appropriations. The result is that the document has an unbelievable lack of internal cohesion.[1] As stated by one experienced official in the field of Federal budgeting, this lack of cohesion has long been recognized "but for some reason or other, like Mark Twain's weather, no one has ever done anything about it, and it is high time someone should."

To remedy these Alice-in-Wonderland conditions in Federal budget and

[1] The budget document transmitted to the Congress on January 15, 1951, considerably modifies a former important summary table in an effort to bridge the gap between the expenditure approach of the Budget Message and the immense supporting "obligation" detail required by law. To that end the modified table continues the usual six columns of both appropriation and expenditure figures for each of the usual three fiscal years covered, then adds eleven new columns to trace the degree to which annual expenditures are based on the later liquidation of obligations incurred against prior year appropriations. This painstaking exercise is of doubtful usefulness and unfortunately falls short of meeting the criticisms which motivate the action program proposed in this article.

appropriation practices, valuable Hoover Commission recommendations for performance budgeting and for improvements of the appropriation pattern are almost wholly irrelevant. More fundamental remedies must be applied to the large problem here under discussion. And those remedies ought soon to be forthcoming, because, as the Hoover Commission puts it, the present frustration of the Congress and the general public with the Federal budget "can readily become a dangerous influence for political and social disintegration."

Accounting Controls a Motivating Factor

The reader may wonder why responsible officials have so long clung to the present confused procedure. In part that hesitation is probably due to a myriad of technical and perplexing details which departures from traditional methods would raise in the farflung and complicated operations of the Federal Government.

More important, however, is undoubtedly the fact that the present system lends itself to easy accounting controls to prevent overspending of appropriations. Thus, each appropriation is set up as a control figure over an account when it is voted. The account is then cumulatively charged with a variable mixture of expenditures as they occur—of current expenditures such as the regular payroll and of the full amounts of multi-year contracts as awarded, regardless of their expiration dates beyond the close of the fiscal year.

At the end of the fiscal year, the residual unobligated amount is by law then no longer available for further obligation. But the obligated balance is carried forward, usually for two years,[1a] so that as the unfinished contracts and other obligations are completed, expenditures are cumulated against the original obligations which were entered in the accounts to provide for each full contract to maturity.

In this simple fashion eventual overspending of any appropriation is prevented regardless of the mixed sequence of long-term and short-term transactions with either slow or rapid subsequent rates of liquidation. It should be emphasized that this control can be continued within each fiscal year under the program proposed in this article, even though that program would stop carry-over of appropriation balances between years to complete contracts.[2]

PRESENT LAW AND PROPOSED THREE-WAY STATUTORY PROGRAM

Many laws control Federal transactions and finance in one way or another. Most important of these from the standpoint of this article, however, are two old statutes. One of these, dating from 1874 and therefore in effect for almost eight decades, requires that "the Secretary of the Treasury shall cause all unexpended balances which shall have remained upon the books of the Treasury for two fiscal

[1a] Actually, under a 1949 statute, unused parts of appropriations are continued as available for paying claims and judgments approved by the General Accounting Office until the statute of limitations takes effect.

[2] It is a great pleasure to indicate a recent basic change promulgated for agency accounting by the General Accounting Office on June 1, 1950 (Accounting Systems Memorandum No. 7, May 2, 1950). The new system permits relegating present accounting for commitments and obligations to memorandum accounts, so that the primary basis of accounting may be the expenditure controls which this article argues would have many beneficial effects in Federal operations. This development has possibilities of far-reaching significance.

years, to be carried to the surplus fund and covered into the Treasury." [3]

The second statute, the so-called Anti-Deficiency Act of 1905, provides that " no executive department or other Government establishment of the United States shall expend, in any one fiscal year, any sum in excess of appropriations made by the Congress for the fiscal year, or involve the Government in any contract or other obligation for the future payment of money in excess of such appropriation unless such contract or obligation is authorized by law . . . ." [4]

These two statutes are primarily responsible for the confusion which has been briefly discussed. It is proposed that they be modified by three statutory amendments. These amendments are by no means the original ideas of the author. They also reflect the findings of various writers on this subject who have developed different aspects of the thesis underlying this article.[5] Moreover, the proposed statutory changes are in line with the fiscal methods successfully used in Canada and Great Britain.

The suggested program would replace the present loose and inadequate annual control by Congress over the operations of Federal agencies through appropriations based on obligations with a proposed annual control which bases appropriations on expenditures. From such an " annuality " concept would arise many benefits of better budgeting, of a cohesive budget document, and of reports which the public can understand and which the Congress can really use for controlling the annual expenditures of the executive agencies.

The basic aspects of the proposed three-way statutory program, discussed more fully below, may be summarized as follows:

1. Base each annual appropriation solely on payments for the goods and services to be actually delivered thereunder up to the end of the fiscal year and not beyond.
2. Use 90-day reserves, etc., to pay tardy bills for such deliveries when rendered after year's end, i.e., after each June 30.
3. Use contract authorizations for all multi-year programs; make universal the present construction contract provision that annual expenditures under each contract are contingent on the size of the related successive annual appropriations by Congress.

The italicized text at the start of each of the major sections I, II, and III below gives very briefly the statutory change which is proposed. The italics are followed by a discussion of the scope and nature of the proposed change.

[3] 18 Stat. 110.

[4] 31 U.S.C. 665.

[5] Among others see:

A. J. Wilson, *The National Budget* (London, 1882), p. 145;

Charles G. Dawes, Statement as first Budget Director in Federal Budget for fiscal year 1921;

W. F. Willoughby, *The National Budget System* (1927), pp. 254-57;

A. E. Buck, *Public Budgeting* (1929), pp. 523-24, 526-27; *Financial Control and Accountability* (in Report of President's Committee on Administrative Management, 1937), p. 144; *Financing Canadian Government* (Public Administrative Service, 1949), pp. 126-28;

J. Wilner Sundelson, *Budgetary Methods in National and State Governments* (in Special Report of New York State Tax Commission, No. 14, 1938), pp. 527-30;

Lucius Wilmerding, Jr., *The Spending Power—a History of the Efforts of Congress to Control Expenditures* (1943). (These efforts are shown to have been largely ineffectual thus far.) Also Mr. Wilmerding's important testimony on June 26, 1945, before the Joint Committee on the Organization of Congress, on H. Con. Res. 18.

Space does not permit a discussion of various alternatives which would also improve the existing situation although not deemed as desirable as the suggestions presented.

I. LAPSING APPROPRIATIONS AND OBLIGATIONS

On each June 30, lapse all annual appropriations and all unfulfilled obligations against them, thus without exception limiting the availability of each annual appropriation to those goods which are actually delivered and those services which are actually rendered up to the end of the fiscal year. As to permanent appropriations (which are undesirable because they escape fresh budget consideration and readjustment each year), it is proposed that the amounts thereby made available in successive fiscal years be treated as if they were individual annual appropriations, each of which is subject to the proposed provisions for annual lapsing.

For the sake of emphasis, it should be repeated that this lapsing of appropriations is proposed as the means of eliminating the present carryover between years. That carryover now creates so confused and complicated a situation as to raise serious fundamental doubts about the adequacy or reality of budget planning and execution by the Executive Branch, and of the control by the Legislative Branch over executive spending.

The essence of budget planning should be the translation of the proposed actual work program of each agency for the budget year into estimated dollars of expenditure. Once approved or modified by the Congress, these dollar amounts ought then to become the simple, understandable basis of control for each annual appropriation.

Instead, as has been indicated, there must now first be deducted from such amounts the obligations of the two prior years which it is estimated will be liquidated as expenditures in the current year. Then there must be added the "extra" amounts of long-term new obligations to be incurred against current appropriations although they will not be liquidated until the two subsequent fiscal years. The comprehensibility of such a process is obscure, to put it mildly.

In past years the Budget Bureau has prepared at the request of the House Appropriations Committee, but has not printed for general public circulation, a complicated and extended tabulation which "bridges" the gap between the disparate Part I expenditure and Part II obligation bases of the Budget document. It shows for each proposed appropriation the proposed expenditures for the budget year ahead and the carryovers at the beginning and end of that year. No reason is given for the absence of similar analyses of expenditure and carryovers for the appropriations of the last completed year and of the year under way.[5a]

The proposed lapsing provision would have the very great advantage of giving Congress direct control over both the amount and purpose of spending within each fiscal year, through appropriations based on expenditures. As things now stand, the carryover to a later year of part of the obligations incurred against prior years' appropriations makes it possible for an agency to

[5a] As indicated by footnote 1, such an extended tabulation was inserted in the budget published January 15, 1951.

use up more of those obligations carried forward than had been anticipated, and therefore for the agency to spend at a more rapid rate than Congress had in mind when the relevant appropriation was considered and enacted.

Prevention of Wasteful Last-Minute Obligations

Of importance also is the fact that since appropriations are based on obligations, unobligated balances of an unexpected size will arise in some agencies as the end of the year approaches. These balances should become savings. Instead, they are a source of possible waste and extravagance. The agencies are now prone to use them to incur last-minute obligations for delivery over future months of rugs, typewriters, motor equipment, and other items which were not part of the original budget plan.

Such abuse is also possible but probably would be of much smaller scope under the proposed expenditure basis of appropriations. The reason is that the unobligated surplus to be used up as the fiscal year matures would usually be revealed too late to permit entering purchase orders and also obtaining delivery thereunder of these last-minute purchases by June 30.

Other Benefits of Annuality

If the proposed lapsing provision is adopted the question of obligations will drop out of Part II of the budget document because both parts will then be on an expenditure basis. Cohesion will be introduced between Parts I and II by standard tables which will present a simple, uniform comparison, first in summary and then in detail. This simple, standard, three-year comparison will show actual expenditures for the last completed fiscal year, estimated expenditures for the year under way, and proposed appropriations (i.e., proposed expenditures) for the budget year ahead.

The new basis would permit easy follow-up and control of the financial aspects of a work program as presented in successive budget documents. Thus, the actual 1950 expenditures for each agency's program, as reported in the 1952 budget document, could be directly compared with (a) the 1950 expenditures as estimated in the 1951 budget (issued a year previously while the fiscal year was under way) and with (b) the 1950 expenditures as originally proposed for appropriation in the 1950 budget document (issued before the start of the fiscal year). This very important comparison for purposes of Congressional control cannot now be made.

This proposal would also make possible an important start toward budgeting Federal capital expenditures. For that purpose simple tables would be feasible showing (a) actual expenditures, by years and cumulatively, from the annual appropriations voted in prior years to implement each multi-year contract authorization (see point III below), (b) the estimated expenditure during the current year, (c) the proposed expenditure during the budget year, and (d) the residual amounts to carry contract authorizations to completion, and for which annual appropriations must still be voted.

Such capital-budget data would show how far "Uncle Sam has incurred and paid off outstanding mortgages." This very important information is now in-

extricably mixed in with current appropriations. Surely the financial deliberations of the Congress on new projects would be greatly improved by this much more adequate progress data on authorized projects under way.

The proposed expenditure approach would make possible for the first time the legislative budget stipulated under the Legislative Reorganization Act of 1946. That act was designed to control total expenditures during the year ahead, but the obligation basis of appropriation makes it impossible really to limit expenditures specifically and thereby to restrict the increase in debt during the budget year to a specific amount.

Likewise, appropriation controls on an expenditure basis would for the first time permit the making of a meaningful table of "Receipts from and Payments to the Public." Increasing importance is being placed on this approach in various quarters as constituting the best method of fitting Federal budget preparation and execution into national developments.

II. NINETY-DAY RESERVES, ETC., TO PAY CLAIMS AND TARDY BILLS

Authorize each department to set up temporary reserves from expiring annual appropriations to pay tardy bills for goods and services actually provided up to the end of the fiscal year, which are rendered within 90 days after June 30. Use special single appropriation to pay billings delayed more than 90 days.

Many Federal agencies operate over huge areas and distances—on a worldwide basis in the case of the State and Military Departments in particular. Even under normal peacetime conditions, therefore, creditors cannot always render bills promptly for goods which have been delivered or services which have been rendered in the closing days of each fiscal year. After the bills are received, some time is required to prepare checks in payment. Finally, further time elapses while the checks are being cashed and cleared by the banks.

It has been testified by experts that the printing process of the Government Printing Office involves up to 90 days of delay in billing; travel, communications, supplies, rents, and utilities introduce delays ranging up to 75 days, and transportation items up to as much as 140 days. In the latter cases, the railroads must not only assemble all freight bills but must then work out the amounts due each participating railroad for its participation in the total service rendered. Even longer delay arises in connection with condemnation proceedings for construction projects, which sometimes may involve a delay of several years after condemnation proceedings are started and before the courts take final action.

It is suggested that early each July 90-day reserves be set up in departmental accounts from expiring appropriations to pay anticipated tardy bills submitted for goods actually delivered and services actually rendered before July 1. This length of period seems adequate to meet anticipated tardiness of all except a very small proportion of the bills for the year's transactions. At the same time this period leaves another 90 days before early January during which (a) the Treasury Department can assemble final figures on total actual departmental expenditures for the year ending June 30, and (b) the Budget Bureau can incorporate the

actual data in various comparisons in the budget document before it is transmitted to the Congress.

This proposal for 90-day reserves is less important than the other two aspects of the proposed three-way program. Practically all bills for the first three quarters, whether prompt or tardy, will be cleared up by year's end. As to bills based on the transactions of the final quarter, tardiness is not an important factor for payrolls and many other items.

The distortion in annual expenditure totals arising from tardy submission of the residual fourth-quarter bills will therefore usually be small. This is especially true when the volume of such tardiness is duplicated in large degree from year to year.

Treatment of Bills More Than 90 Days Late

After the conclusion of the above 90-day period, there arises the problem of what shall be done with tardy bills received thereafter, including the judgments and claims certified by the General Accounting Office.[6] Space does not permit presentation of all of the different methods of meeting the comparatively inconsequential total amounts usually involved, but some examples are given below.

The departments might be allowed to absorb some or all of items below $500 each from their appropriations for the following year. Or a simple solution would be to vote a single annual appropriation to a central account in the Treasury Department to pay all amounts billed more than 90 days late. To insure adequate annual appropriations for this purpose, a general statutory provision might be enacted requiring that each annual budget submitted to the Congress must include an amount equal to the average of such total annual expenditures in the three prior fiscal years. Whenever that average proves currently inadequate, a supplementary appropriation could be voted as required.

Central payment of very tardy bills for pre-June 30 deliveries of services or goods of course would affect adversely the comparability of appropriations for a given fiscal year with the resultant actual expenditures, but such payments would fortunately be small in most cases because vendors are usually eager to have payments made as soon as possible. In any event the probable degree of distortion does not seem to justify the trouble of maintaining many accounts in the Treasury year after year to pay an occasional very tardy bill.

Where accrual accounts are installed in the departments, adjustment can be made for the above distortion in annual budget justifications, along with changes in inventories during each year. The exact role of accrual accounts in the Federal scene must be worked out, however. On the revenue side, they cannot follow state and local practice too closely, because the Federal tax liabilities of individuals, unlike individual tax liabilities on local real estate, are usually not known in advance. As to expenditures, the accrual accounts will be open to serious basic criticism if they weaken or obscure clear, simple Congressional control through annual appropriations in the current year for goods actually delivered and services actually rendered in that current year.

In any event the accountants are far from unanimous as to what should be

[6] See 63 Stat. 407, of 1949.

done in the accrual accounts with the depreciation of capital assets. Few would go so far as to include the cost of depreciating desks and similar articles in the annual accounts, but differences of opinion become more and more pronounced as more costly capital assets are considered.

III. MULTI-YEAR CONTRACT AUTHORIZATIONS SUPPORTED BY ANNUAL APPROPRIATIONS

Use contract authorizations exclusively rather than only occasionally, as at present, to provide for multi-year programs. Require that each multi-year contract which is awarded shall contain a clause specifying that until the work is completed annual amounts of expenditure thereunder are to be wholly contingent on the size of the successive annual appropriations voted by Congress.

The latter provision has long been followed in the important construction contracts of both the Corps of Engineers and the Bureau of Reclamation.[7]

Present construction contracts may cover two or three years of work, thus permitting more labor-saving devices to be used by contractors for the large projects used and thereby bringing about lower bids. Large multi-year contracts are equally feasible under the proposed system, but Congress may subsequently reduce annual appropriations, and it is to be expected that contractors will submit higher bids to take care of this eventuality. It is felt that this loss is justified in order to give flexibility to Congress to adjust construction programs to impending booms or depressions. Flexibility could also be achieved by specifying in each contract the amount of work to be done in each of the years covered, as specified in the original work plan, along with the penalties to be paid by the Government if it decides later to depart from that plan.

Under present multi-year contract awards, the public benefits if favorable weather conditions or other good luck permits a contractor to make the new facility available sooner than was anticipated. But there is a natural sequence of operations in the erection of a large building, for example, and but little speeding up is feasible as the work moves from excavation to construction of foundation, floors, and walls, to installation of internal equipment. Steel, concrete, and other supplies arrive on prearranged schedules from their separate places of manufacture, perhaps over limited railroad or highway facilities. The employment of different types of skilled and expensive labor must also be planned in advance.

Under such circumstances any great speeding up of the completion of large contracts because of favorable conditions seems improbable. To the extent, however, that there is early completion of contract work, supplementary appropriations could be voted between January and July if a project is moving ahead more rapidly than had been anticipated. Or the annual appropriation might actually be designed to provide for completion of work under contract in the shortest possible time, assuming the most favorable conditions. In the latter case, the Bureau of the Budget would be directed to hold

[7] See ruling of Comptroller General: 2 Comp. Gen. 477.

back in nonexpendable reserves any amounts not spent because of delays.

The latter proposal is also a solution for the difficulty of estimating construction and other multi-year costs far in advance. The problem here is not that of making overly generous annual appropriations for multi-year contracts; manifestly the money will then simply not be spent in its entirety. It is rather one of reducing the amount available under an appropriation if unexpected delays occur. Such flexibility can be provided on the above basis by appropriating for average or good conditions, and then holding back proper amounts in reserves if poor conditions develop.

At the present time, multi-year obligations are frequently included in annual appropriations and may not be liquidated for as much as two years after the year when the obligation is incurred. It is manifest that these old obligations carried forward are thereby removed from re-examination in subsequent fiscal years, when perhaps they should be adjusted up or down by Congress in the light of new developments. Annual consideration and adjustment will automatically occur under the new three-way program which lapses all obligations against annual appropriations at the end of each year, thereby making it necessary that new appropriations be voted before fresh obligations may be incurred.

JOINT ACCOUNTING PROJECT

Good work has been done in recent years to improve Federal accounts through the joint voluntary accounting project of the General Accounting Office, the Bureau of the Budget, and the Treasury Department. It does not seem, however, that those agencies are well advised in compromising with adaptation via accrual accounting to adjust to an obligation basis of appropriations, rather than supporting an expenditure basis of appropriations to bring about adequate reform of budget and accounting procedures. For example, the Joint Project applauds the use (for the new budget justification of the Atomic Energy Commission) of a general scheme or formula by which the amount to be appropriated is calculated as the sum of the following four items:

1. Current expenditures (supported when possible by work units $\times$ unit cost).
2. Capital expenditures.
3. Change in inventory during year.
4. Change in outstanding obligations during year.

It will be most disappointing if the drive toward improvement and modernization of the Federal accounting systems under the Joint Accounting Project spends itself in this comparatively minor step forward. Item 4 of the above formula leaves unchanged most of the grave disadvantages of the present system in planning, budgeting, appropriating for, and controlling Federal fiscal operations.

The members of the Joint Accounting Project can render a great service to the nation by urging Congress to adopt the three-way program here proposed, to meet the difficult problems which arise. Anything short of this fundamental approach will fail to clear up the Alice-in-Wonderland conditions prevailing in Federal budgeting and other fiscal practices.

REFORM OF THE CONGRESSIONAL LEGISLATIVE BUDGET

CLINTON FIELDER*

CONGRESS is under censure for retaining an obsolete appropriation system ill-suited to the growing complexity of governmental structures and activities. The *Congressional Record*, committee reports, and hearings abound with repeated confessions by Congressmen of the woeful inadequacy of the appropriation system and their personal frustrations in operating under it. In 1948 Senator Eugene Millikin, chairman of the Senate Finance Committee, observed that the procedure is incredibly inefficient and that in effecting cuts the appropriations committees' staffs can only "peck here and peck at them there." He suggested that there is a fundamental dependence upon the administrative agencies for information and data concerning the propriety of their expenditures and that if progress is made it is accomplished by arbitrary deductions.[1] The Hoover Commission asserted that the present appropriation structure underlying the budget is a patchwork evolved over a great many years and that it follows no rational pattern.[2]

The disadvantages of archaic fiscal procedures have been aggravated by the expansion of governmental services and expenditures. Under present institutional arrangements it is impossible for Congress to gain a thorough knowledge of the specific expenditure estimates in the executive budget; yet, approval of the budget is the basic device for Congressional determination of public policy and review of administrative activities. An effective budgetary policy is an important element in preserving a virile, responsible government. Large-scale defense spending increases the need for reform.

Many solutions to this problem have been proposed. Pervading all the suggested reforms is the belief that Congress requires an institutional change if it is to reassert its constitutional responsibility for financial control. Moreover, many persons are convinced that Congress cannot content itself with merely reviewing detailed estimates. Instead, they feel it must formulate an identifiable fiscal policy of its own as a standard for evaluating the executive budget. Yet, of a large number of suggestions aimed at specific ills, few have been sufficiently comprehensive to offer more than a pious hope for Congress to

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1 *Evaluation of the Legislative Reorganization Act of 1946*, Hearings, Senate Committee on Expenditures in the Executive Departments, 80th Cong., 2nd sess. (1948), p. 216 (hereinafter referred to as *Evaluation of the Legislative Reorganization Act of 1946*).

2 Commission on Organization of the Executive Branch of the Government, *Budgeting and Accounting* (1949), p. 12.

achieve fiscal leadership. For example, consolidated appropriation bills may facilitate an over-all view of detailed expenditures and revenues and help Congress resist log-rolling pressures.[3] This measure, however, is limited as a means of achieving such recognized budgetary objectives as integration of tax and expenditure policies, unification of Senate and House action on fiscal problems, development of an over-all Congressional fiscal policy to guide the appropriation and finance committees, and orientation of fiscal, monetary, and debt policies with Congressional action on the executive budget. Attaining these objectives requires institutional reform. Neither would increasing the staffs of the appropriation committees contribute significantly, under present procedures, to development of a unified financial policy.

The Legislative Budget Experience

Of all the reforms which have been suggested or tried only the Joint Legislative Budget Committee and the legislative budget, established in section 138 of the 1946 Legislative Reorganization Act, provide a basic institutional adjustment necessary to achievement of effective fiscal leadership. Five years after its adoption, however, any discussion of the legislative budget has significance largely as a post-mortem; for, although section 138 has not been repealed and is still acclaimed, Congress has ceased to observe it.

In 1945 the Joint Committee on Reorganization of Congress asserted that no effort was made in the existing system to arrive at a fiscal policy, and that if there were such a policy, it could not be followed.[4] The committee proposed the formation of a Joint Legislative Budget Committee to consist of the four principal finance committees of the Congress, namely, the House Appropriations Committee, the Senate Appropriations Committee, the House Ways and Means Committee, and the Senate Finance Committee. It further recommended that the Joint Budget Committee meet at the beginning of each session and, after due deliberation and consultation, submit a legislative budget by February 15 which would include: (1) an over-all limit on Federal expenditures for the ensuing fiscal year and (2) an estimate of total receipts. Congressional approval of the expenditure ceiling was recommended to make it obligatory. With relatively little objection, the legislative budget proposal was approved.

The act does not prescribe whether the legislative budget is to consist of detailed specifications, appropriation totals, or merely over-all expenditure and revenue totals. The consensus is, however, that the requirement is satisfied by an over-all receipts estimate and an over-all ceiling on expenditures. Section 138 provides that the Joint Legislative Budget Committee shall submit a concurrent resolution containing the ceiling on appropriations. This resolution must recommend the reduction of the public debt to the extent of

[3] Clarence Cannon, chairman of the House Appropriations Committee, believes that the 1950 experience with a consolidated appropriations bill was highly successful. See his article, "The Arsenal Against Inflation," *Tax Review*, XI (December, 1950), 45-48.

However, the House Appropriations Committee failed to share Cannon's view and abandoned the omnibus bill system on January 30, 1951. This action was featured by the press as being partly due to a revolt against the chairman.

[4] S. Misc. Repts. I, Rept. 1011, 79th Cong., 2nd sess., (1946), p. 19.

the excess if receipts exceed expenditures, and if expenditures exceed receipts it must recommend an increase of the debt equal to the difference. The act also authorizes the committee to hire necessary staff.

It may be surmised from the above description of section 138 that the term, legislative budget, is a misnomer. The discussion before the Joint Committee on the Reorganization of Congress, the Congressional debates, and the descriptions of its functions by the Joint Legislative Budget Committee all show that two basic purposes were contemplated. These were the development of a Congressional fiscal policy and the unification of the work of the four principal finance committees.[5] To the framers of the proposal for the legislative budget, a Congressional fiscal policy meant the confinement of total appropriations for the executive budget within a predetermined limit. The basic purpose of the legislative budget was economy, and it is evident that the legislative budget was intended as a Congressional device for resisting the executive branch.

The history of attempts to use the legislative budget is an account of successive failures. In 1947 the House and Senate were unable to agree on a ceiling over expenditures. Leaders of the majority party and members of the Joint Budget Committee agreed that the ceiling recommended by the committee was a guess, to be defended only as a target.[6] In 1948 a resolution calling for a $2.5 billion reduction in the executive budget passed in both houses, but total appropriations in that year exceeded the ceiling by a few billion dollars. In 1949, as the deadline for reporting the legislative budget approached, the joint committee admitted that it had taken no formal action and requested Congress to extend the deadline from February 15 to May 1. But no report was made in 1949. In 1950 no formal action was taken under section 138.

A brief examination of experience with the legislative budget is necessary to indicate the reasons for its failure.

In 1947 the majority party made the legislative budget the instrument to fulfill a campaign promise for tax reduction. In order to force a tax reduction, the Republican leadership on the Joint Budget Committee reported a cut of $6 billion in the executive budget. The procedures preparatory to this announcement were, to say the least, irregular. Only two meetings of the full committee and two meetings of a subcommittee of twenty members were held. Expenditure estimates were not analyzed prior to fixing the ceiling figures, and the reduction was secretly decided upon by a few of the appropriations leaders. Alben Barkley, a minority member of the budget committee, explained in Senate debate that minority members and even some of the Republican members were not privileged to attend the inner sessions and " were not even told where the crystal ball was located. . . ."[7] In a similar vein Representative John Dingell asserted that as a member of the Legislative Budget Subcommittee he felt that he was entitled to know how the $6 billion reduc-

[5] A. S. Mike Monroney reviews the principal purposes of the legislative budget in *Evaluation of the Legislative Reorganization Act of 1946, op. cit.*, pp. 85-87.

[6] See L. B. Wheildon, "Legislative Budget-Making," *Editorial Research Reports*, January 6, 1948, p. 5.

[7] *Congressional Record*, 93 (February 19, 1947), p. 1174.

tion was to be effected. The ceiling figure was a surprise to him and to most members of the committee.[8]

In order to ensure the approval of the recommended ceiling, the Republican members met in conference to drum up party support for passage of the resolution without amendment. Representative Clarence Cannon asserted that the majority party held a caucus to give the younger members " a pep talk just before the game lest they chafe at the rigors of caucus control." [9] Since the Congressional leaders had 107 days after the election and 48 days after Congress convened to work on the budget, he concluded that their superficial action showed " they wanted to dangle before the dazzled eyes of the '20 percent across the board' taxpayers this will-o-the-wisp to lead them across the political marshes to the fabulous pot of gold at the end of the rainbow." [10] The minority party also caucused to decide political strategy.

Political bitterness in the House was precipitated by Democratic opposition to the rule prohibiting amendment. Adolph Sabath, ranking member of the Rules Committee, lashed out against what he termed the most drastic gag rule submitted since the days of Uncle Joe Cannon. He asserted that he was unable to get the slightest information on where the cuts were to be made and that Representative John Taber, chairman of the Joint Legislative Budget Committee, admitted that he himself did not have the information.[11]

In the Senate a successful drive to amend the resolution in order to provide for a reduction of only $4.5 billion was predicated upon the ceiling being arrived at arbitrarily. Several Republican Senators critical of their leadership revealed considerable intra-party factionalism. The remarks of Senator Wayne Morse (R., Ore.) are typical of the dissension. He said: " I am at a complete loss to understand why the committee failed in more than a month's time to produce some evidence. . . . Other speakers have pointed out how arbitrary, secretive and apparently political the procedures of the Budget Committee have been. Those charges have not been successfully refuted. I am convinced they cannot be." [12] Representative A. S. Mike Monroney, who had served as the vice-chairman of the Joint Committee on the Reorganization of Congress, made an appeal for nonpartisan treatment of the legislative budget. Decrying the irresponsible use of the mechanism, he predicted that political manipulation of the legislative budget would discredit it.[13]

Although the debate on the adoption of the legislative budget in 1948 was less vociferous it again degenerated into a political quarrel. It was charged that the Congressional leadership was primarily motivated by the desire to reduce expenditures in an election year. In 1949 political strife continued, but change in majority party leadership reversed party attitudes toward the legislative budget. Whereas in 1947 the Democrats had assailed the Republican leaders for their failure to carry out

[8] *Ibid.*, p. 1241.

[9] *Ibid.*, p. 1207.

[10] *Ibid.*, pp. 1207-08.

[11] *Ibid.*, p. 1201.

[12] *Congressional Record*, 93 (February 26, 1947), p. 1431.

[13] *Congressional Record*, 93 (February 19, 1947), p. 1224.

section 138, now they adopted the role of apologists, and the Republicans harassed the finance leaders for their lethargy. In 1949 and 1950 the apathy of the Congressional and budget leaders was much in evidence.

Congressman Monroney stated that the legislative budget would have worked if the leaders of the appropriations committees had wanted to make it work, but the hostility to the idea of binding themselves by the adoption of a legislative budget was intense.[14] The action of the finance leaders of the Joint Budget Committee in the trial period 1947-50 shows their opposition to the new procedure. The tenor of the remarks made before Congress by the chairmen of the appropriations committees of the two houses is further testimony of their opposition to the legislative budget idea.

The Congress has been reluctant to commit itself to a spending plan fashioned by the Joint Budget Committee in advance of Congressional action on appropriation measures. This reluctance is deep seated, and it grows partially out of the belief that no general conclusion relative to a spending policy can be determined, and certainly not made mandatory, until after the minute appraisal of expenditure requests has been completed by the appropriations committees. Congressmen who share this view feel that six months prior to the fiscal period the Congress cannot adopt a ceiling which can be applied effectively in handling supplemental and deficiency appropriations, legislative authorizations, and changing budgetary conditions in general.

[14] The comment was made in a 1949 address, quoted by George B. Galloway in *Reform of the Federal Budget* (Public Affairs Bulletin No. 80, Legislative Reference Service, 1950), p. 105.

The Legislative Budget Committee did not fail because of inadequate staff, lack of hearings, the complicated and ineffective appropriations system, or the early date for reporting the legislative budget; it failed because the disposition was lacking to make the legislative budget work.

This is not to say there were no procedural deficiencies. These can be overcome, however, if Congress is so disposed. The writer is convinced that Congress can achieve a leading role in national budgeting only by redefining the nature and form of the legislative budget.

Implementation of the Legislative Budget

This section is based on the premise that the purpose of the legislative budget will continue to be the formulation of an identifiable legislative policy relative to the executive budget and the coordination of the four principal finance committees. In the concluding section the writer extends his views relative to the possible role of the legislative budget in unifying economic policies with action on the annual budget.

Partisanship.—Since the budgetary plan is an instrument for formulating political decisions, the intrinsic political character of the budget should be preserved. The National Committee for Strengthening Congress suggested that fiscal policy determination could be handled better by the party policy committees of the two houses than by the four principal finance committees acting jointly. The committee believed that fiscal policy should be clearly defined as a party responsibility and that policy committees are in a much better position to synthesize conflicting inter-

ests.[15] What is needed is an intelligent comprehension of the executive budget by the leadership of both major parties, and this would be enhanced by their association with fiscal leaders on a joint committee. Fixing responsibility upon both parties to comply with the requirements of the legislative budget could be achieved in greater measure if majority and minority party leaders were members of the Joint Legislative Budget Committee, including perhaps the majority and the minority floor leaders of both houses.

The majority party monopolization of the Joint Budget Committee staff should be eliminated. A number of Congressmen have considered this problem, and Senator Styles Bridges' view can be taken as typical. He has stated that a part of the staff should be responsible to the minority, perhaps one-third, so that independent investigations could be made by minority staff men without feeling disloyal to their employer, the chairman of the committee.[16]

Content of Legislative Budget.—A recommended ceiling is the device in the legislative budget to control executive expenditures, but events have proved its unworkability.[17] This ceiling should be abandoned, for the deterrent effects upon spending can be achieved as effectively without formal action on a ceiling figure. In this connection Senator Robert Taft has observed that Congress should not have to vote upon a legislative budget. He was interested in seeing a legislative budget presented to the Congress in addition to the executive budget, and then Congress could act as it wished.[18]

In order for Congress to exert fiscal control, the Joint Legislative Budget Committee should systematically study the relative importance of the functions, projects, services, and activities of the Government. It should principally devote its attention to summary materials prepared by the staff, and it should study detailed specifications only so far as that is necessary to arrive at decisions relative to proposed functional expenditures. The committee should not attempt to duplicate the work of the appropriations committees or the Bureau of the Budget. This is physically impossible because of limited time and resources; it is unnecessary; and it precludes the possibility of any real fiscal control. Fiscal control cannot be gained by floundering through a maze of figures for a few weeks, but it can be easily lost by following this procedure. Conclusions reached in such a fashion not only lack objectivity but their application is hazardous to the extent they are given priority over those figures which have been carefully determined by the executive departments and the Bureau of the Budget.

The legislative budget should not be a ceiling; neither should it be a series of statistical tables, for no attempt should be made to rival the executive budget in particularity. The legislative budget should consist of recommendations for the summary amounts to be appropriated for each of the vari-

[15] *Evaluation of the Legislative Reorganization Act of 1946, op. cit.*, pp. 38-40.

[16] *Joint Legislative Budget Committee*, Hearings, Senate Committee on Rules, 81st Cong., 2nd sess. (1950), pp. 10-11.

[17] A ceiling on expenditures has been called unrealistic and a straightjacket by Professor Jesse V. Burkhead, "Federal Budgetary Developments: 1947-1948," *Public Administration Review*, VIII (Autumn, 1948), 267.

[18] *Evaluation of the Legislative Reorganization Act of 1946, op. cit.*, p. 34.

ous governmental functions based upon the most appropriate allocation of revenues. The formulation of such a legislative budget by representatives of the four finance committees would help to unify the efforts of these committees in presenting to the Congress a central policy for fiscal control. The legislative budget would serve as a guide which could be adjusted to subsequent fiscal considerations. Although there is presumably some latitude under section 138 of the 1946 act, the law should specify this objective more clearly.

Continuous Functioning by the Budget Committee.—Under provisions of section 138 the budget committee must submit the legislative budget by February 15; thus, action of the committee is confined to the first six weeks of each session, and it ceases to function after it tenders its report. This arrangement is curious. The budget committee cannot adequately report a ceiling figure until the appropriations committees examine the minutiae of the executive budget; yet a ceiling following Congressional action on the appropriation measures is of little value.

Once the fiction is discarded that a ceiling figure on expenditures constitutes a legislative budget, it becomes clear that the Joint Budget Committee should not be a six-weeks agency. In order to formulate the legislative budget, it should work for a period of weeks prior to the detailed action of the House Appropriations Committee. It should hold periodic meetings and file such additional reports as it deems necessary during the period of deliberations by the appropriations and finance committees. This proposal would provide for a continuity of action by the budget committee members serving on the House and Senate finance and appropriations committees during the appropriating and tax review stages, and it would help alleviate the grievous disadvantage of the Senate, which now has to wait until the House submits the appropriation measures before beginning earnest consideration of appropriations. Also, by the continuous operation of the Joint Legislative Budget Committee during this period fiscal policy formulation could be kept current. A logical extension of the work of the committee would be for it to prepare in terms of the current objectives of the legislative budget an analysis of the appropriation measures after they are submitted to the House by the House Appropriations Committee. This report to the House would be of valuable assistance to individual members. Similarly this action could be repeated at corresponding times during Senate and conference committee action on appropriations.

Periodic meetings and reports of the Joint Legislative Budget Committee would be necessary to carry out the fiscal plan presented in the legislative budget, and it is not false optimism to assume that under these conditions a greater degree of cooperation would develop among the members of the House and Senate finance committees.

Additional Recommended Procedural Changes in Section 138.—General agreement exists that the Joint Legislative Budget Committee is much too large for effective committee action. It consists of 102 members, or the full membership of the four Congressional finance committees. Senator Styles Bridges pointed out that the full committee had to meet in the House of Representatives and " that it was just like going to a circus to have a Commit-

tee that size." [19] George Smith, secretary of the Majority Party Policy Committee in 1948, reported that the size of the committee caused friction between the two houses, in part because the House finance committees have larger memberships.[20] In 1947 and 1948 the Joint Legislative Budget Committee operated through a subcommittee of twenty members consisting of five members from each of the four finance committees. A number of Congressmen have recommended a budget committee approximating that number.

It is elemental that the Joint Budget Committee must be serviced by an adequate staff. The members of the committee are too preoccupied with other matters to undertake intensive investigative work themselves. Since the Joint Legislative Budget Committee had no staff in 1947 and 1948, obviously it could not function effectively. The necessary staff assistants, authorized in existing law, should be hired and organized along functional lines in order that individual members could develop a technical competence and familiarity with specific governmental activities. The staff should be required to file its functional analyses of the executive budget together with its recommendations by the beginning of the Congressional session. It should be empowered to attend Budget Bureau hearings, and the administrative agencies should file with the staff duplicate copies of the expenditure estimates which they are required to submit to the Bureau of the Budget. The bureau could periodically present progress reports covering its action on the estimates at various stages of the budgetary process.

It was the consensus of Congress that February 15 did not allow sufficient time to prepare the legislative budget. If provision were made for the presentation of an actual legislative budget by a properly staffed Joint Budget Committee, which worked at its job continuously, the initial reporting date could be postponed. This would allow more time for fiscal planning by the Congressional leaders and members of the principal Congressional finance committees who would be on the Joint Budget Committee.

Other Budgetary Changes Conducive to an Effective Legislative Budget.—A consolidated appropriations bill was instituted in 1950 and then abandoned at the close of the year. Preparation of the legislative budget could be accomplished more effectively if the expenditure estimates were consolidated in one or two bills. The traditional Congressional practice of approving separate supply bills at various times in the session would handicap seriously the formulation of an over-all fiscal policy by the legislative budget committee.

In addition to the joint action of the representatives of the four Congressional finance committees on the budget committee it would appear advisable to coordinate the budget-making work of the House and Senate. Although the Senate has equal authority in approving tax and appropriation measures, its investigations are not nearly as extensive as those of the House. There seems to be no justifiable reason why the appropriation and finance committees of the two houses should not hold simultane-

[19] *Joint Legislative Budget Committee*, Hearings, Senate Committee on Rules, 81st Cong., 2nd sess. (1950), p. 10.

[20] *Evaluation of the Legislative Reorganization Act of 1946, op. cit.*, p. 162.

ous hearings, preferably joint hearings.

The division of the twenty-one member Senate Appropriations Committee into ten subcommittees has been criticized vehemently by many Senators. Provision should be made for no Senator to serve on more than one or two subcommittees.

One of the principal reasons why the Joint Budget Committee would have had difficulty in developing a policy on the executive budget in 1947 and 1948, if it had tried, is the form in which the executive budget was then presented. An exceedingly complicated and voluminous document in its present form, it was much more complicated prior to the recent introduction of the performance budget. In accordance with Hoover Commission recommendations the performance classification was instituted.[21] This emphasizes the functions, activities, or work to be done rather than things acquired, such as personal service, contractual services, supplies, and materials. According to the Hoover Commission, a functional or performance budget shows clearly the relationship and scope of Federal activities irrespective of the performing agencies, facilitates the application of cost analyses per unit of work, and more nearly reveals overlappings. The commission believed that a performance budget would provide greater comprehensibility and would help the Congressmen to understand what the various governmental agencies are doing. It said, "Such is the idea involved in the so-called 'legislative budget,' which has so far not succeeded mainly because of the budgetary approach."[22] The Bureau of the Budget announced that the 1951 budget was designed to show over 90 per cent of appropriations on a program basis.[23] It follows that the work of the Joint Budget Committee has been made much easier by this recent development. Despite this marked improvement in the executive budget, a number of further improvements would be helpful. Information regarding the President's receipts estimates is still sketchy. These estimates have been inaccurate, and Congress has depended in recent years upon the receipts estimates of the Joint Committee on Internal Revenue Taxation.[24]

To enable the Joint Budget Committee to command an over-all view of budgetary matters, section 208 of the 1946 Legislative Reorganization Act, which directs the Comptroller General to study the efficiency of operations in each of the administrative agencies, should be complied with. This can be accomplished by the Congress appropriating the necessary funds to carry out this provision of the act.

The freedom which legislative committees have to authorize expenditures without having to assume the responsibility for appropriations should be brought under the scrutiny of the Joint Budget Committee. Provision should be made for an estimate by the affected administrative agency, or the Bureau of the Budget, of the cost of increased services initiated by legislative committees. Copies of these memoranda should

[21] See Commission on Organization of the Executive Branch of the Government, *Budgeting and Accounting*, pp. 8-13.

[22] Task Force Report, Appendix F., Commission on Organization of the Executive Branch of the Government, *Fiscal, Budgeting and Accounting Activities* (January, 1949), pp. 74-76.

[23] See Galloway, *Reform of the Federal Budget*, p. 65.

[24] Burkhead, *op. cit.*, p. 274.

be submitted to the legislative budget committee for its consideration and possible adjustments in the legislative budget.

The Hoover Commission, Representative Monroney, and others have recommended extensive changes in the national accounting system. Since accounting reveals the status of appropriations, every effort should be made to place accounts and the performance budget on a comparable basis so that governmental operations and the manner in which appropriations are spent can be traced.

The discrepancies between cash expenditures and appropriations for a given fiscal period have approximated a few billions of dollars. Fiscal planning becomes exceedingly difficult under this condition. The writer does not purport to offer a solution to this problem but is cognizant that the collective effects of deficiency appropriations, supplemental appropriations, unexpended balances, contract authorizations, permanent appropriations, and mixed reporting of gross and net receipts prevent Congressmen from having a clear conception of fiscal affairs.

An Expanded Conception of the Legislative Budget

The writer is of the opinion that the major advantage to be gained from the legislative budget lies in its utilization as the institutional means for reforming the national budgetary system. A decisive break should be made from the parsimonious tradition of an annual balanced budget and appropriate stress laid on the more important objective of a balanced or stable economy. The national economy and the national budget interact and mutually condition each other. The level of the national income, employment, economic stabilization, and the flow of purchasing power and investment are influenced by taxes and expenditures. The Congress should regularly plan this critical function, not being content with merely making certain that it does not rock the boat, but seeking actively to accomplish through budgetary and fiscal policies the objectives of economic growth and stability.

To achieve these ends the role of the Congress in budgeting should be redefined. The objectives of Congressional budgetary action should be two, one political and one economic. The political objective of the legislative budget should be to achieve the social purpose of governmental action by developing through the budget a policy or plan for allocating available revenues among vying governmental services. The economic objective should be to develop a fiscal policy relative to the executive budget with the intent of achieving economic stability, the best use of resources, full employment, and an increasing national income. The legislative budget is a mechanism for harmonizing these objectives.

The need for a national economic balance sheet was considered by the Congress in 1945. Extensive House and Senate hearings were held to inquire into the feasibility of an annual economic budget as a method for assuring a high level of full employment.[25] The House and Senate committees recommended that the President pre-

[25] Hearings on S. 380, Sub-Committee of the Senate Committee of Banking and Currency, 79th Cong., 1st sess. (1945), and Hearings on H. R. 2202, House Committee on Expenditures in the Executive Departments, 79th Cong., 1st sess. (1945).

pare an economic budget which would include such items as the trends in employment, a review of the economic programs for the previous fiscal period, and a report on anticipated economic developments. Machinery for Congressional action on the economic budget was recommended in the form of a Joint Committee on the Budget consisting of fifteen members from each house. It was recommended that this committee be empowered to make a continuous study of matters relating to the economic budget, to submit recommendations pertaining to it, and to act as a guide to the legislative committees dealing with propositions related to the economic budget. This program of fiscal policy formulation by the joint action of the legislative and executive branches was not fully realized.[26] The recommendation for a national economic budget was not approved, but provision was made in section 208 of the Full Employment Act of 1946 for the annual submission of an economic report to the Congress by the President. The Council of Economic Advisers was established to assist the President in the preparation of the report and to advise him on economic affairs. No attempt is made to minimize the significance of the President's economic report, but the fact remains that it is a report, not an economic budget. The President is moving in the direction of incorporating fiscal policy objectives into the executive budget, but this has not been brought to fruition.

The Full Employment Act created a Congressional Joint Committee on the President's Economic Report; it, however, has not achieved the results intended. Under provisions of section 208 the joint committee is required to submit an annual report by February 1, containing recommendations on the President's economic report. It was presumed that the committee would annually formulate an economic policy which would serve as a guide to the Congress in interpreting the President's report; but the committee has submitted only a few reports and these primarily have been factual investigations of specific economic problems. Thus the failure of the Joint Legislative Budget Committee is matched by the perfunctory action of the Joint Committee on the Economic Report.[27] As a consequence, there is little evidence of present-day Congressional fiscal planning; in the meantime the need for Congress to join fiscal and economic plans continues.

To obtain Congressional fiscal planning and long-range economic planning the functions of the Joint Budget Committee and the Joint Committee on the Economic Report should be combined. This could be accomplished by the creation of a Joint Congressional Finance Committee to consist of the majority and minority floor leaders and representative members from the Joint Budget Committee and a Joint Economic Budget Committee. To this committee should be delegated the task of preparing an over-all legislative budget.

This proposal depends upon a number of additional changes. The Legislative Budget Committee should be resuscitated in accordance with the recommendations offered in the preceding

[26] See Ralph Flanders, "Administering the Employment Act," *Public Administration Review*, VII (Autumn, 1947), 221.

[27] See Clarence Cannon, "Congressional Responsibilities," *American Political Science Review*, XLII (April, 1948), 316.

section of this paper. Provision should be made for the President to submit an economic budget in addition to the annual budget. The latter should contain all current operating expenditures and should be kept in annual balance. The economic budget should be instituted as the basis for compensatory spending policies and long-range economic planning. The Congress should pass on all requests for funds in the counter-cyclical budget, but it should allow administrative flexibility in the timing of such expenditures. The economic budget could be balanced in a period of full employment and high national income.

To consider the proposed executive economic budget and other Presidential economic reports, the present Congressional Joint Committee on the President's Economic Report should be reorganized as a Joint Economic Budget Committee. An adequate staff of economists and research personnel should be provided the committee.

The proposed two executive budgets, annual and economic, could be submitted to the Annual and Economic Budget Committees respectively. These committees, or duly authorized subcommittees, should prepare the Congressional Annual and Economic Legislative Budgets. Upon the completion of this work the Congressional Joint Finance Committee should meet to prepare a final legislative budget. The Joint Finance Committee would be purely a policy and coordinating agency of the two budget committees and would require no staff of its own.

The writer offers the mechanics of the proposed plan of merger as merely illustrative. Whatever procedural arrangements might be devised the fundamental consideration should be the integration of fiscal and economic planning in order that a unified, dynamic plan for budgetary management could be conceived and effectuated by the Congress.

REFORM OF STATE-LOCAL FISCAL RELATIONS IN NEW YORK, II

DAVID M. BLANK*

A PREVIOUS ARTICLE [1] described the background of the Moore Plan and the essentials of the program enacted in New York State in 1946. The most important features of the plan were:

1. abolition of the bulk of the traditional shared-tax system and its replacement by per capita grants to cities, towns, and villages;
2. raising of the State's contribution to four local welfare functions; and
3. establishment of two reserve funds designed to stabilize the revenue available for State operations and State aid to localities.

This article describes experience under the Moore Plan since 1946, and offers some tentative judgments concerning its effect on Federal, State, and local finance.

LEVELS OF STATE AID SINCE 1946

Table 1 shows State aid to localities during the four fiscal years, 1947-50, in which the program has been in effect. The increases in aid totals are striking. This is even more true if 1950 levels are compared with 1946. State aid in 1946 amounted to $273.2 million and, in 1950, to $512.8 million. The changes in the major aid programs between 1946 and 1950 are shown in Table 2. The increases are primarily in grants for education, social welfare, and health subventions and in upstate counties' share of motor vehicle and motor fuel taxes. These increases are offset in part by a reduction in general government aid.

To evaluate properly the impact of the Moore program, it is necessary to determine how much of the $239.6 million increase in State aid over only four years can be ascribed to the operations of the plan. Neither the education grant increase of $113.5 million nor the health grant increase of $18.6 million can be credited to the plan. The changes in the formulas for State aid in these areas occurred after the adoption of the Moore program. Similarly, the laws enacted in 1946 changed the technique by which upstate counties share in State collections of the motor vehicle and motor fuel taxes, but not the amount of the counties' shares. The increase of $8.0 million in upstate counties' receipts is due solely to larger State collections from these sources. Thus, of the total increase of $239.6 million, a net amount of only $99.5 million is associated with the State aid programs affected by the Moore Plan.

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[1] *National Tax Journal*, III (December, 1950), 326-47.

This figure still does not fully measure the quantitative results of the 1946 program. The rising cost of social welfare programs would have necessitated some increase in State aid even if the State had not increased its proportionate share of these costs. In addition, the higher level of 1950 State receipts from taxes formerly shared with the localities indicates that local units would have received somewhat more in shared taxes in 1950 than they did in 1946, had the shared-tax system continued in effect. To estimate the effect of the Moore Plan on State aid in 1950, the amounts of aid actually granted in 1950 must be compared with what would have been granted had the 1946 formulas continued.

Table 3 compares actual 1950 State aid for social welfare programs with estimated State aid for that year under the old formulas. State aid under the 1946 formulas was estimated on the assumption that total expenditures for the aided programs would have been the same under the old and the new formulas. Total expenditures in 1950 were estimated on the assumption that combined Federal and State aid amounted to 80 per cent of the total, with localities contributing the remaining 20 per cent.[2] Under the 1946 formulas combined State and Federal aid would have been 40 per cent of expenditures for home relief, 75 per cent for old-age assistance and aid to the blind, and 50 per cent for aid to dependent children.[3]

TABLE 1

STATE AID TO LOCALITIES, 1947–50

(In millions of dollars)

Item	1947	1948	1949	1950
Per capita grants	118.7[a]	85.4	84.8	84.2
Payments in lieu of motor vehicle and motor fuel shared-tax receipts	15.8	16.6	17.6	20.4
Education grants	128.1	152.0[b]	158.7[c]	226.6
Social welfare grants	71.4	132.4	115.2	143.2
Highway grants	5.5[d]	4.9	4.9	4.9
Health grants	1.1	10.3	15.3	19.7
Other State aid	11.4	14.5	13.1	13.8
Total[e]	352.0	416.1	409.6	512.8

[a] Includes $56.7 million distributed from shared taxes collected or accrued prior to April 1, 1946.

[b] Includes $23.2 million paid from teachers' salary emergency increase fund.

[c] Includes $12.9 million paid from teachers' salary emergency increase fund. The unexpended balance of this fund was transferred to the local assistance fund at the end of fiscal 1949.

[d] Includes $0.6 million snow removal aid.

[e] Includes localities' receipts from mortgage tax.

Source: 1950 Report of the Comptroller of the State of New York, p. 145.

[2] This results in a minor error since the State and Federal Governments bear the entire cost of aid for the small number of welfare clients who are State charges.

[3] State plus Federal aid for local administration of old-age assistance and aid to the blind, as distinguished from aid for such assistance itself, amounted to only 50 per cent in 1946; however, administrative expenses are a very small proportion of the entire cost of these two programs.

Federal aid would have been the same under the old and new formulas, provided total State and local expenditures were of the same magnitude. Therefore, subtraction of actual Federal aid in 1950 yielded an estimate of 1950 State contributions under the pre-Moore formulas.

Table 3 shows that State aid for social welfare would have approximated $79.3 million under the 1946 formulas, as compared with actual aid of $143.2 million in 1950. Thus, of the total increase of $110.2 million in State aid for social welfare between 1946 and 1950, approximately $63.9 million can be considered to have resulted from the change in aid formulas.[4]

As shown in Table 2, the per capita grant total in 1950 was $11.6 million less than local receipts in 1946 from taxes the sharing of which was discontinued under the Moore Plan. Since State receipts from all except one of the former shared taxes were higher in 1950 than in 1946, localities would have gained more than $11.6 million if the shared-tax system had not been replaced by the per capita grant. Corporate franchise tax collections were $20.2 million higher in 1950 than in 1946;[5] localities would have received about $5.1 million of this increase. Utility tax receipts were $5.5 million higher,[6] all of

TABLE 2

MAJOR CHANGES IN STATE AID, 1946 TO 1950

(In millions of dollars)

Item	1946	1950	Increase or Decrease (–)
Total State aid	273.2	512.8	239.6
General governmental aid:			
Local receipts from franchise, personal income, alcoholic beverages, and utility taxes and New York City's share of motor vehicle and fuel taxes	95.8	....	....
Per capita grants	....	84.2	–11.6
Upstate counties' share of motor vehicle and fuel taxes	12.4	20.4	8.0
Education grants	113.1	226.6	113.5
Social welfare grants	33.0	143.2	110.2
Health grants	1.1	19.7	18.6
Other State aid	17.8	18.7	.9

Source: 1946 and 1950 Comptroller's Reports.

[4] A similar comparison for 1949 indicated that of the total increase of $82.2 million between 1946 and 1949, the change in formulas accounted for $18.3 million.

[5] Collections were $134.0 million in 1946, $154.2 million in 1950. Localities formerly received one-fourth of State receipts from this tax. In this and the following comparisons it should be pointed out that not all of the local share of the increases in revenue would have been received by the localities in fiscal 1950. The local share of State receipts collected in the last quarter of 1950 would have been distributed to the localities in the first quarter of fiscal 1951 under the old tax-sharing system.

[6] Receipts were $20.2 million in 1946, $25.7 million in 1950. Cities formerly received all of the receipts from this tax.

which would have been gained by localities. Receipts from the personal income tax rose $86.0 million,[7] of which $13.8 million would have accrued to localities. Alcoholic beverage tax receipts were at the same level in both years.[8] Finally, New York City's receipts from the motor fuel and motor vehicle taxes would have been about $6.4 million higher in 1950 than in 1946.[9] Localities, thus, would have obtained about $30.8 million more in shared taxes in 1950 than in 1946, if the 1946 tax-sharing provisions had continued,[10] or about $42.4 million more than they actually received from per capita grants.[11]

TABLE 3

Comparison of Actual State Aid for Social Welfare Programs in 1950 with State Aid in 1950 under 1946 Formulas

(In millions of dollars)

Program	Actual	Under 1946 Formulas	Increase
Home relief	73.2	36.6	36.6
Old-age assistance	29.9	25.6	4.3
Aid to dependent children	38.9	16.0	22.9
Aid to the blind ..	1.2	1.1	.1
Total	143.2	79.3	63.9

Source: Original data from 1950 Report of the Comptroller. Method of estimating 1950 aid under 1946 formulas is outlined in the text.

Allowance for the estimated increase in welfare aid and decreases in general government aid indicates that the Moore program increased State aid in 1950 by about $21.5 million.[12] The major contribution of the Moore Plan, at least to date, has not been in the form of a substantial increase in local assistance.

PER CAPITA GRANTS

Reference was made in the earlier article to the fact that the traditional shared-tax system was highly sensitive to changes in business conditions. For example, shared-tax receipts dropped from $84 million in 1930 to $44 million in 1934, at a time when welfare needs were rising and revenue from other sources was drastically declining. The Moore program was intended to eliminate the fiscal perversity of this form of State aid and shift the burden of fluctuating State revenues back to the State.

The years just prior to adoption of the Moore Plan were years of high income and large State tax revenues and, therefore, of high local receipts from shared taxes. If, over a complete business cycle, State tax revenues average less than receipts in these prosperous years, the per capita grants will provide a larger amount of aid than the shared-tax system. If, however, average receipts over future cycles turn out to be greater than receipts in these years, the grants will provide smaller amounts of aid than would have accrued to localities if the shared-tax system had been continued. The latter seems the more

[7] Receipts were $147.7 million in 1946, $233.7 million in 1950 (exclusive of $29.2 million allocated to the war bonus account). Localities formerly received approximately 16 per cent of revenue from this tax.

[8] They were $68.6 million in 1946 and 1950.

[9] Receipts were $5.3 million in 1946; estimated at $11.7 million in 1950 if former sharing system had continued.

[10] For 1949, the comparison is about $10.5 million.

[11] For 1949, $21.6 million.

[12] For 1949, $28.8 million.

likely prospect. This judgment is supported by the prospect of an indefinite period of large military appropriations and a rising level of prices and incomes.

The increase in population and the resulting increase in per capita grants is a relatively minor offsetting factor. The 1950 census shows an increase in population for New York State between 1940 and 1950 of about 1.4 million. General government aid will as a result be increased by approximately $9 million, and this new higher level of per capita grants will remain constant for another ten years.

Proponents of the per capita grant system asserted that the new aid structure was "chosen for its close correlation with the needs of our municipalities" and that it involved the substitution of "an equitable system of distribution . . . for an inequitable method." [13] In one regard, these claims are inaccurate. As pointed out in the previous article, the per capita grant totals allocated to New York City, to upstate cities as a group, and to towns and villages were extremely close to their receipts from shared taxes in the years just prior to adoption of the Moore Plan. No real effort was made to reassess the financial needs of the locality groups, but rather the attempt was to maintain such groups in approximately the prior financial relationship.

In two respects, however, the introduction of the per capita grants did represent a substantial advance over the former aid system. First, within each group of municipalities each local unit now receives the same aid per capita. The shared-tax system resulted in wide variations in aid per capita, which were completely unrelated to the needs and abilities of localities and provided larger amounts of per capita assistance to wealthier communities than to poorer communities. Second, the shift to per capita grants has probably marked the final repudiation of the "source" concept in the allocation of State aid; under this approach, much of State aid was distributed in proportion to the amount of certain State tax receipts collected in each local unit. Under the per capita grant system—the first state program in the United States which provides for grants-in-aid for general governmental activities—it becomes possible to allocate local assistance for general purposes in terms of each local unit's needs and financial ability. Although the Moore Plan does not go this far, it does open the way for future introduction of an equalizational grant which will ensure the maintenance of local activities at a socially acceptable minimum level.

WELFARE GRANTS

The second major alteration in State finances under the Moore Plan was the raising of the State's contribution for four major welfare programs. The 1946 report of the Moore Commission recommended that the local share of expenditures for the four State-aided programs be reduced to 20 per cent of the total local expenditures and that the State assume the difference between 80 per cent of the cost and the Federal contribution. For home relief, there is no Federal contribution, so the State was to assume the entire 80 per cent. The State's contribution for the other three types of assistance was to vary because of differences in the formulas for Federal grants. The higher level

[13] *Report of the Commission on Municipal Revenues and Reduction of Real Estate Taxes* (Albany, 1946), p. 19.

of State aid was to be made retroactive to January 1, 1946. The entire set of recommendations was enacted in March, 1946, and since then has determined the levels of State aid for welfare purposes.

The Moore Commission estimated the increase in State aid under its program at $20.9 million (at 1944 price level and case load). Table 3 indicates that the increase under 1950 conditions was about $63.9 million. In recent years welfare needs have been low compared with the average that will probably be experienced over a complete business cycle. If business activity were to decline seriously, State welfare grants would increase sharply. Over any complete cycle, State aid in this area will be significantly higher under the current formulas than under the prior formulas. The major portion of aid will be granted at the time when localities' financial problems are most severe.

Local welfare expenditures have risen sharply in the postwar period, despite the high levels of national income; and State welfare grants have increased accordingly. The public assistance case load in New York State in 1949 was only 258,000; this was below the average of 301,000 in 1942 and only 20 per cent above the average of 214,000 for 1943, a year of intense labor shortage.[14] Thus, the welfare program has been operating since the war with something close to the irreducible minimum of public charges. Nevertheless, State welfare grants to localities rose from $71.4 million in fiscal 1947 to $143.2 million in fiscal 1950. This increase resulted from the higher cost of relief budgets rather than from a rise in the number of public assistance cases.

[14] Governor Dewey's budget message of February 1, 1950, *New York Times*, February 2, 1950, p. 16.

The unexpected sharp increase in State welfare costs in this prosperous period apparently raised doubts in the minds of the present State administration as to whether the State can or should bear such a large portion of total welfare costs. Although both the 1946 commission report and Governor Dewey's 1946 budget message accepted the proposition that the State should bear the "shock of rapidly pyramiding relief costs" in the "event of a major economic depression,"[15] the difficulty seemed to be that, in the event of a major depression in the near future, State welfare grants would rise, not from a prosperity level of $70 million, but from a prosperity level of $140 million. There were hints in several budget messages that Governor Dewey was by no means happy with the present grant formulas. For example, he stated in his 1950 budget message: "Whether this obligation [to support local welfare functions under the current formulas] can continue to be borne by the State without impairing State finances depends upon many factors, not all of which can yet be fully assessed. Much will depend on experience this year."[16]

It seems that the implications of the 1946 welfare grant changes had not been fully appreciated. The State assumed the bulk of financial responsibility for the portion of the welfare programs which the Federal Government does not support. It should have expected to bear the burden of any variations, pleasant or unpleasant, in the need for welfare expenditures. The

[15] *Report of the Commission on Municipal Revenues and Reduction of Real Estate Taxes*, (Albany, 1946), p. 21.

[16] *New York Times*, February 2, 1950, p. 16.

State certainly would have been in a far worse position if the expected postwar depression had occurred, for welfare needs would undoubtedly have been far greater and revenues far less. Would the governor then have cast doubts on the ability of the State to pay the bulk of welfare costs? If so, what would have become of the whole philosophy behind the Moore program?

The raising of the State contribution to local welfare programs was not intended to stimulate expenditures but to transfer a portion of the existing local financial burden. It is difficult to determine the effect of the Moore Plan on the efficiency of local welfare administration. The State and Federal Governments were already contributing a substantial share of the cost of welfare functions prior to 1946 and the localities were already subject to considerable temptation to relax administrative standards. It would seem logical, however, to have expected the raising of the State contribution to have intensified this situation.

Technically the State has the power through administrative action to control local expenditure in this field. Increased local expenditure can come about through raising the amount of aid granted to each type of welfare recipient and by relaxing standards of eligibility. Although there are no statutory maxima for local payments to relief clients, the actual budgets for each type of client are subject to review by the State Department of Social Welfare; only approved payments to welfare cases are reimbursed by the State. Surveillance of the amount of aid granted to each type of recipient would seem, on paper at least, to be relatively straightforward. On the other hand, effective State control of standards of eligibility is undoubtedly much more difficult.

The major investigation of New York City's welfare system, undertaken by the State Board of Social Welfare in 1947 and 1948, confirmed this view. In its final report, the board concluded that there had been a serious breakdown in the operation of the City's Department of Welfare. It said: "The evidence disclosed only comparatively few so-called 'luxury' cases. . . . Grants for food and clothing . . . [had] not kept up with the increased cost of living." Rather the welfare department had "failed to establish eligibility for many persons in receipt of public assistance." Indeed, "eligibility . . . [had] been established in less than half of the cases."[17] Although it may be debatable whether the City's welfare administration would have been significantly more efficient had the pre-1946 formulas continued, it cannot be questioned that under either system of State aid the problem of effective control of welfare expenditures is unsolved and that this problem was made more difficult by the reduction in local support of welfare functions.

No other local function in New York State receives such a small percentage contribution from the governmental unit actually making the expenditure. A traditional doctrine of public finance is that administrative efficiency can be achieved only by requiring governments to obtain by their own efforts revenue sufficient to meet their expenditure needs. This doctrine has been increas-

[17] *New York Times*, March 23, 1948, p. 22. See also, *Public Social Services in 1948*, 82nd Annual Report, New York State Department of Social Welfare (Albany, 1949), pp. 9-17.

ingly relaxed in the recent past to allow for substantial assistance by other levels of government, provided, however, that the recipient units still raise substantial sums for the support of the aided functions. Even this requirement no longer holds for the major welfare activities in New York State. Why then is there no consideration of the possibility of direct State assumption of these programs? A typical answer is: " the extremely personal nature of welfare services makes local administration desirable. Knowledge of local conditions and adaptation of the service to these conditions are important." [18] It is questionable whether this can be seriously maintained with regard to the larger cities, which include considerably more than half of the State's population and account for far more than three-quarters of the total welfare expenditures. Even if this argument is given some weight, the deleterious effect on local administrative efficiency of a contribution of only 20 per cent would still seem to be decisive. Surely a more desirable system of distribution of welfare aid would involve direct State exercise of the major welfare functions. If the State did not wish to finance the entire burden, it could still charge back to the respective communities their share of the cost, as is the current practice in county welfare districts to which cities and towns have turned over the social welfare functions.

The assumption by the State and Federal Governments of 80 per cent of the cost of four major welfare programs did not eliminate the welfare financing problems of localities. These four programs do not comprise the entire list of local welfare activities. Among unsupported items, hospital care for the indigent sick, adult institutional care, and foster care of children bulk large in many local budgets. In calendar 1945, total local expenditures for the four State-aided welfare programs amounted to $88.3 million, of which $32.9 million came from local revenue. In the same year, local expenditures on hospitalization for the indigent sick amounted to $41.1 million; on public homes, $5.3 million; and on public institutions for children and child-placing agencies, $4.9 million.[19] Local expenditures on these three programs totalled more than half of expenditures on the four State-aided programs and almost twice the local contribution for aided programs.[20]

Welfare expenditures in New York City amount to almost three-quarters of all local expenditures on the State-aided programs. In the 1947-48 City budget, $142.2 million was allocated to the welfare department; $55.7 million, to the hospital department for the care of the indigent sick; and $20.7 million, to private welfare agencies in the charitable institutions budget.[21] Of this total of $218.6 million, the City's contribution was $99.4 million (45.5 per

[18] *Report of the New York State Commission on State Aid to Municipal Subdivisions* (Albany, 1936), p. 146.

[19] *Public Social Services in 1946*, 80th Annual Report, New York State Department of Social Welfare (Albany, 1947), pp. x, xi.

[20] In calendar 1948 total local expenditure on the four aided programs amounted to $187.8 million of which $36.9 million came from local revenue. In calendar 1947 localities spent $66.7 million on hospitalization, $7.4 million on public homes and $7.1 million on foster care of children (*Public Social Services in 1948*, 82nd Annual Report, New York State Department of Social Welfare [Albany, 1949], pp. xvi, xvii).

[21] Statement by (then) New York City welfare commissioner, Benjamin Fielding, *New York Times*, January 22, 1948, pp. 1, 4.

cent); the State's, $88.5 million (40.5 per cent); and the Federal Government's, $30.7 million (14 per cent). Functions not supported by the State accounted for about one-third of total welfare expenditures.

Welfare functions which are financed solely by the localities are subject to the same pressures from declining business activity, or inflation, as are State-supported programs. Within this area the localities will find themselves with their traditional problems of rising welfare needs during depression periods.

RESERVE PLAN

The provisions governing the operations of the two reserve funds established by the Moore Plan were described in detail in the previous article. A comparison of the present law with the plans suggested by the Mastick and Moffat Commissions,[22] indicates a number of important distinctions between the two types of funds. First, the Moore Plan provided for stabilization funds to cover practically all of the State's tax system; the earlier proposals were for stabilization of the yields of only a limited number of taxes and for a separate fund for each tax. Second, an attempt was made to prescribe minima for the present reserve funds by providing that withdrawals which bring either fund to less than 25 per cent of its norm must be repaid within six years. Third, there is a maximum limit to which each fund can grow. Fourth, the norms established under the present law are defined by the amounts of money currently spent, rather than by a moving average of the yields of the tax system.

The implications of the last two differences are worthy of further analysis. The maximum levels of the two reserve funds are set at 35 per cent of the State purposes fund norm and 45 per cent of the local assistance fund norm. No payments can be made to the funds which would raise them above these levels. Under these provisions, are the reserves likely to be large enough, under the most favorable conditions, to stabilize the State's finances in even a moderately severe depression?

In fiscal 1950, State payments for local assistance purposes amounted to almost 60 per cent of total State expenditures. If this ratio continues, it is difficult to see how there could be any decline in total State expenditures in the event of a decline in business activity. State expenditures for local assistance would be likely to increase substantially. Welfare grants would inevitably increase under depression conditions, with the State paying the difference between Federal contributions and 80 per cent of the cost of four major programs. Per capita grants are scheduled to increase by about $9 million when the 1950 census figures are officially published and then will remain constant for ten years, regardless of economic conditions. Educational grants will shortly rise in response to the high postwar birth rate. These three subventions together amount to about 90 per cent of current State disbursements for local assistance. It is unlikely that the State would be able to reduce its expenditures on State purposes sufficiently to offset the probable rise in local assistance under depression conditions.

[22] *Report of the New York State Commission for the Revision of the Tax Laws* (Albany, 1932); *Report of the Joint Legislative Committee on State Fiscal Policies*, Legislative Document (1938), No. 41 (Albany, 1938).

If the State were to bring the reserve funds to their maximum levels, they would currently total about 41 per cent of the combined expenditures from the general fund for local assistance and State purposes. If current levels of expenditure by the State were maintained and if State revenues were to decline as rapidly as they did between 1930 and 1932, the maximum funds would be exhausted in a little more than two years.[23] If these declines were to take place from the approximately balanced budget levels of today, the beginning of the third fiscal year would find the combined reserve funds holding deposits of slightly less than 3 per cent of the State's then-current expenditures. The start of the fifth fiscal year would find the State faced with the necessity of repaying about one-third of its second-year withdrawals.

If State outlays increased, the funds would be exhausted somewhat earlier. If the decline in receipts were more moderate, it would take somewhat more than two years to exhaust the funds. In any case, the reserve funds, at their maxima, could carry the State through not much more than two years of falling revenue. Resort would then have to be made to borrowed funds.

Another significant difference between the Moore Plan and previous reserve plans is the definitions of the norms for the reserve funds. The two norms under the present law, although technically conforming to the wording of the authorizing constitutional amendment, actually differ significantly from the provisions envisaged by those who had made the original reserve fund proposals, including Abbot Low Moffat, the drafter of the constitutional amendment.[24] In fact, the norms fundamentally alter the scope of the reserve program. The earlier suggestions contemplated the establishment of norms equal to the expected cycle averages of the yields of the relevant taxes. The State would have had available for expenditure only the amount indicated by the norm. Broadly speaking, the governor would have been forced to budget for an addition to the reserves in prosperous times, when current yields were higher than the norm, and for a withdrawal from the reserves in depressions, when the yields were below the norm. Under the present law, the norm for each reserve fund is defined as the amount spent during the current year. This lifts all restrictions on the governor's activities. He can now present a balanced budget to the legislature, or budget for a surplus or deficit, as he desires, subject, of course, to the maximum and minimum restrictions on the reserve funds. The definition of the norms changes the reserve plan from a mandatory program to a discretionary one. The governor and the legislature now determine whether the reserve program will be successful.

Table 4 summarizes operations of the reserve funds over the period 1946-50. Three entries in this table require explanation. The first two entries are the transfers of April 1, 1946. To start the reserve funds, Governor Dewey, in his budget message of January 31, 1946, proposed that $40 million be transferred to the State purposes reserve fund on April 1 and $10 million be transferred

[23] State receipts in 1931 were about 13 per cent below 1930, and receipts in 1932 were about 25 per cent below 1930.

[24] As indicated in a personal letter from Mr. Moffat to the writer.

to the local assistance reserve fund on that date, out of the expected surplus for fiscal 1946.[25] This suggestion was enacted as part of the Moore program,[26] and out of the surplus of $188 million in fiscal 1946, $50 million went to prime the reserve funds.[27] That year was the last with a large war-created surplus. The third item of special interest in Table 4 is the transfer of $43.3 million to the local assistance reserve fund in fiscal 1947. Only $6.2 million of this amount represented the operating surplus of the local assistance fund. The remainder was a reflection of changes in bookkeeping incident to the adoption of the Moore Plan. In fiscal 1947 only three per capita grant payments were made from the local assistance fund, and the fourth regular payment of $29.7 million was transferred to the reserve. A further transfer of $7.4 million to the reserve resulted from the change in method of distributing upstate counties' share of motor vehicle and fuel taxes.[28]

TABLE 4

OPERATIONS OF RESERVE FUNDS, 1946–50

(In millions of dollars)

Item	State Purposes Reserve Fund	Local Assistance Reserve Fund
Additions and withdrawals (–):		
April 1, 1946	40.0	10.0
March 31, 1947	15.4	43.3
March 31, 1948	3.6	.3
March 31, 1949	–3.1	5.4
March 31, 1950	4.8	–13.9
Net income from investments, 1946–50	1.3	.5
Balance, March 31, 1950 ..	62.2	45.6

Source: 1950 Report of the Comptroller, p. 4.

The other transfers and withdrawals represent operating surpluses and deficits. Exclusive of investment income, the State purposes reserve fund increased by only $20.7 million between April 1, 1946, and April 1, 1950, and the local assistance reserve fund increased by $35.1 million during the same period. The local assistance reserve fund, however, received the above-mentioned nonrecurring bookkeeping windfall of $37.1 million in 1947; its operating loss over the four years was $2.0 million. Net transfers to the two reserve funds out of operating surpluses amounted to only $18.7 million.

The apparent intention of the Moore Commission was to keep the two funds above 25 per cent of their norms; repayment of withdrawals which bring either fund below that level are compulsory. Despite nonrecurring additions, the reserves have remained far below the 25 per cent minimum and with one exception have steadily fallen in relation to the required minimum. The State purposes reserve fund at the close of the fiscal years 1947-50 constituted the following percentages of its norm: 1947, 19.8 per cent; 1948, 18.8 per cent; 1949, 17.4 per cent; 1950, 17.2 per cent. The local assistance fund amounted to the following percentages of its norm at the end of these fiscal

[25] *New York Times*, February 1, 1946, pp. 48-49.

[26] 1946 Laws of New York State, chap. 303, sec. 5.

[27] The remainder was transferred to the postwar reconstruction fund (now called the capital construction fund).

[28] Governor Dewey's budget messages of January 31, 1946 (*New York Times*, February 1, 1946, pp. 12-13) and of January 30, 1948 (*New York Times*, January 31, 1948, pp. 8-9).

years: 1947, 16.7 per cent; 1948, 13.8 per cent; 1949, 14.8 per cent; 1950, 9.0 per cent.

This record was made in a period when the nation and the State were experiencing unprecedented prosperity. If reserve funds are not raised in such years, when can it be expected that the State will be able to raise them?

This question may now have become academic in view of the increasing likelihood that the nation is facing a long period in which large military budgets will result in increasing levels of income and prices. But no longer ago than the winter of 1949-50 just the reverse was expected by many. As recently as December, 1949, for example, New York City Welfare Commissioner Raymond Hilliard was predicting that the home relief case load in New York City would increase one-third by June, 1951.[29] Surely, the alterations in the international scene which are largely determining the change in the national economy were not within the range of vision of the State administration. And it is certainly no justification of the course followed over the last four years that inflation has now become the most likely prospect for the future. The apparent lesson to be learned from this experience is that it is extremely difficult politically, perhaps even impossible, to effect a rational fiscal policy in periods when incomes are high and prices are rising, as long as the implementation of the policy is discretionary. This is pointed up more sharply by the fact that the State governor and legislature were of the same political party. The history of these years, in the State as well as the nation, suggests that "built-in flexibility," i.e., changes in government taxing and spending policy that automatically go into effect at predetermined levels of income, employment, and prices, may be required to overcome basic political obstacles to sound fiscal policy at the peak of the business cycle.[30]

[29] *New York Herald Tribune*, December 27, 1949, p. 1.

EVALUATION

The primary goal of the Moore program was the easing of the financial burden which localities must bear in times of business depression. The shift from the shared-tax system to the per capita grant system and the increase in the State's contribution to local welfare activities were for this purpose. It seems clear that the Moore Plan would have been successful in achieving this end, had circumstances put it to the test. Localities would certainly have been far better able to withstand a depression under the new program of State aid. This was the major contribution of the Moore Plan.

From the State's viewpoint, the outlook is less sanguine. It was, of course, realized that the plan would entail a heavy financial burden on the State in periods of declining income. The reserve plan was intended to help meet this problem, but the reserves have not accumulated sufficient funds to be of major value in depression periods. On April 1, 1949, the combined reserve funds held balances equal to only 19 per cent of total State expenditures in fiscal 1949; on April 1, 1950, the balances amounted to only 12 per cent of 1950 expenditures. As a result, the State ad-

[30] Cf. "The Problems of Economic Instability, A Committee Report," Donald H. Wallace, chairman, *American Economic Review*, XL (September, 1950), 524-25.

ministration began to feel restive under the commitments of the aid program. Governor Dewey in his 1950 budget message indicated that it might be necessary to lower the State's percentage share of local welfare expenditures. Although this particular suggestion may have been merely one gambit in the traditional political bargaining between the State and the localities, it does underline the very strong likelihood that the State would have confronted serious difficulties in meeting its increased financial responsibilities had business conditions taken a turn for the worse. It is indeed doubtful that the State is any better prepared, at the present moment, to meet such responsibilities than it was in 1930, at the onset of the great depression.

The Moore Plan also has considerable interest in relation to the role of the Federal Government under current schemes for economic stabilization through fiscal policy. Those who have studied the efforts of the Federal Government to lift the nation out of the depression of the 1930's have often ascribed the lack of effectiveness of these activities, in part, to the perverse behavior of state and local finances.[31] In brief, the argument is that state and local governments have increased spending in prosperous times and reduced it in depressed periods, that they have reduced tax rates in prosperous times and raised them in depressed periods, and that their borrowings are high in prosperous periods and low or negative in depressed periods.

The Moore Plan, if effectively carried out, would tend to reduce these obstacles to effective antidepression policy on the part of the Federal Government. If similar programs were enacted in other states, this result would be strongly reinforced. Local expenditures on current operations could be more readily maintained, and even expanded in the welfare field, without recourse to increased local tax revenues. State grants for general governmental activities would remain at stable levels, instead of falling with declining incomes; state aid for welfare activities would rise as needs increased.

On the State level, if the reserve plan were as powerful a weapon as originally hoped, the State would in effect be engaging in counter-cyclical fiscal activity. The cash inflow to the State Government would be greater than the cash outflow in periods of high incomes, the difference being deposited in the reserve funds; in depressed periods, the funds would be drawn on to provide for the excess of State expenditures over receipts. The doubts previously raised concerning the effectiveness of the reserve scheme, as now operated, do not invalidate this conclusion as far as depression financing is concerned, for it is probable that the State has permanently committed itself to the broad objectives of the Moore program. Even the collapse of the reserve plan would not necessarily prevent the State from fulfilling these objectives. Borrowing in times of depression would permit the State to carry out its commitments, while achieving the economic stabilization results of an effective reserve plan.

[31] Cf. Alvin H. Hansen and Harvey S. Perloff, *State and Local Finance in the National Economy* (New York, 1944), pp. 48-69; George W. Mitchell, Oscar F. Litterer, and Evsey D. Domar, *Public Finance and Full Employment* (Postwar Economic Studies, No. 3, Board of Governors of the Federal Reserve System, Washington, D. C., 1945), pp. 101-30; Henry H. Villard, *Deficit Spending and the National Income* (New York, 1941), pp. 288-94, 392-413.

This analysis describes the contributions of the Moore Plan toward sound local and State finances and rational stabilization efforts under conditions both of reasonably high and reasonably low incomes. If current forecasts of a long-term inflationary spiral prove correct, the picture will be somewhat changed. Localities will find themselves under increasing pressure from rising costs. Neither property tax revenue nor State aid, under current formulas, is likely to increase correspondingly. Under such conditions, local units may well find that they made a poor bargain with the State in 1946, and the State may be forced to reconsider the whole State-local financial relationship once again.

When the Moore Plan was enacted, its proponents acclaimed it as a comprehensive and permanent revision of State-local fiscal relations.[32] Actually, the plan was in no sense a "final solution" of the problems. It consisted of a forward-looking set of changes in one important segment of the State's financial structure and accomplished these changes within the traditional framework of State-local relations. Other aspects of State aid have required reconsideration since the passage of the bills comprising the Moore program. For example, educational grants, which were increased in 1945, were raised again in 1948 and 1949.[33] Similarly, grants to counties and cities for the support of public health activities were increased beginning January 1, 1947; these grants totalled $19.7 million in fiscal 1950, compared with only $1.1 million in fiscal 1946 and 1947.[34] The State is now increasing aid to localities for expenditures on libraries and on hospital care and treatment of tubercular patients. The State has been aware of problems in local finance other than those treated by the Moore Plan and has continued to alter its pattern of State aid accordingly.

Further, the limitation of the Moore Plan to a revision of the technique of State aid involved an implicit assumption that no alternatives were open to the commission. The possibility that a reallocation of functions might meet needs more adequately seems to have been passed over rather quickly by the commission. Except for the lone statement that "unless local government officials administer . . . [the] social [welfare] programs efficiently, economically and in the best interests of the welfare recipient, abuse of the opportunity granted might lead to invasion of, or the loss of, local administration,"[35] no reference to this question can be found in the commission's reports.

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[32] See, for example, report of radio broadcast by Governor Dewey, April 24, 1946, *New York Times*, April 25, 1946, p. 23; also editorials, *New York Times*, February 11, 1946, and February 8, 1947.

[33] The 1948 changes included, principally, the raising of the amount paid by the State to localities to $200 per student in average daily attendance during the three preceding school years in the elementary grades (full-time kindergarten and grades 1-6), and $240 per student in the academic grades (grades 7-12), minus the yield of a 7 mill tax on the full value of real property in the school district, subject to the traditional 5 mill check (1948 Laws of New York State, chap. 116). The 1949 formula required the State to pay to each school district $200 per elementary student and $253 per academic student, minus the yield of a 5.66 mill tax, subject to a 5.66 mill check (New York State Laws of 1949, chap. 377, sec. 1).

[34] 1950 Comptroller's Report, p. 145.

[35] *Report of the Commission on Municipal Revenues and Reduction of Real Estate Taxes* (Albany, 1946), p. 21.

During the recent past, the State has refused to consider direct assumption of any functions currently borne by the localities. It has attempted to influence the quality and quantity of these local functions through grants and through administrative action. The extreme position in this regard was taken in the enactment of the so-called " cafeteria " plan of recent years, under which various localities were granted the right to impose any of a number of new minor local taxes. However, the continued growth of State aid indicates that there might yet be considerable merit in reassessing the roles of the State and localities. Surely, a strong argument could be made for the assumption by the State of the portion of the social welfare program to which the localities now contribute only 20 per cent of total cost.

Finally, economic developments already under way may well require the evolution of State-local fiscal relations in new directions. A long period of inflationary pressure will undoubtedly necessitate a re-examination of such relationships and involve a quite different approach to the financial problems of localities.

The Moore Plan, despite its many merits, is not the final answer to the problems of State-local relations. There were changes in State aid procedures before the plan; there were changes concurrent with the adoption of the plan; there have been changes since the plan was adopted. The program itself had a limited set of objectives and appears likely to achieve only a portion of them. As time passes, new problems come to the fore and their treatment, as always, requires new programs and techniques.

BOOK REVIEWS

The Effects of Taxation on Foreign Trade and Investment. By FISCAL DIVISION OF THE DEPARTMENT OF ECONOMIC AFFAIRS, UNITED NATIONS. Lake Success, New York: February, 1950. Pp. 87. (Distributed by Columbia University Press, 50 cents.)

This study is primarily concerned with the effects of various domestic tax programs on international capital movements and on the volume of international trade. The text of the report contains a large number of illustrations of tax practices as they relate to international transactions. The appendix provides in systematic form the provisions of various international agreements and conventions designed to eliminate or soften the overlapping and duplicating features of different tax structures. The assembling of this information in compact form constitutes the main value of the report.

The anonymous authors take the position that tax measures play a subordinate role as barriers to international transactions. In their opinion, fears of political and economic instability, outright prohibitions and limitations on trade, and direct controls arising in connection with shortages of foreign exchange are the main obstacles to international investment and trade. This position makes the justification of the study somewhat questionable. If the fundamental premise is granted, and certainly a case can be made for it, taxation has little importance either as a stimulant or as a barrier to trade. Consistent with this position, import duties, the classic tax device to reduce trade, are given only incidental attention.

The report places considerable stress on the dangers of tax concessions designed to attract foreign investment. Such policies may rob a domestic tax program of what equity basis it has and in addition occasion considerable financial embarrassment to the government of the capital-importing country. The reviewer sympathizes with this point of view. But the contrary opinion is widely held. Many regard the doctrine of "taxation for revenue" as the ultimate in unsophistication. The "incentive" approach, however, implies an endorsement of discriminatory taxation. Although formally a case can be made for such tax measures with respect to domestic or international programs, in practice they commonly degenerate into mere special privilege. Our notorious special depletion allowances for mineral enterprise are illustrations of such an unfortunate result in this country. Many similar cases of unjustified tax concessions granted in connection with international transactions are cited in the report. Nondiscrimination is a sensible objective of tax policy and ought not be sacrificed lightly merely because tax concessions might conceivably achieve worth-while ends. Outright subsidies are usually a better method. They permit a more intelligent assessment as to whether or not the likely gains are worth the cost.

The report would have greater value if detailed attention were paid to those tax devices such as import duties which do appear to restrict trade even in the presence of the other barriers recognized by the authors. Perhaps such a procedure would have been too "theoretical" to be consistent with the purposes of the report. As it stands, the report does contain a number of generalizations, but the analysis in support of them is mainly of the *sub rosa* variety. One suspects that the writers felt obliged to make the study appear merely descriptive when, in fact, worth-while results would have required detailed analysis. For this reason the report does not add much to our knowledge of how taxes affect international trade and investment. The information gathered together in this report does, however, provide to interested students some assistance in assessing the relevance of taxation on international economic relations.

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EXCESS PROFITS TAX

A student, tax practitioner, business executive, or other interested citizen wishing to understand why the excess profits tax was enacted and why it took the form it did may begin his studies by examining several official documents of the 81st Congress, 2d session. These include: hearings before the House Ways and Means Committee (959 pages); report of the Ways and Means Committee (82 pages); hearings before the Senate Finance Committee (866 pages); report of the Senate Finance Committee (42 pages); report of the conference committee (25 pages). To this reading he may add the House, Senate, and conference bills and the debates reported in the *Congressional Record*.

If, however, the investigator is overwhelmed by the bulk of the official documents, he may get a good introduction to the subject by turning to five excellent summaries prepared by the Staff of the Joint Committee on Internal Revenue Taxation. These are: *Federal Excess Profits Taxes* (11 pages, a legislative history of the excess profits tax from 1916 through 1945); *Summary of Excess Profits Tax Hearings before the Committee on Ways and Means* (18 pages); *Summary of Principal Provisions of H.R. 9827 (The Excess Profits Tax Act of 1950) as It Passed the House of Representatives* (13 pages); *Summary of Hearings before the Committee on Finance on H.R. 9827* (15 pages); and *Summary of H.R. 9827 . . . as Agreed to by the Conferees* (28 pages). These summaries were prepared, of course, for the House and Senate tax committees and other members of Congress, but they are extremely valuable to others who are interested in taxation. Unfortunately, only the summary of the bill as agreed to by the conferees, and as it finally passed, is available from the Superintendent of Documents (price 10 cents). A limited number of copies of the other summaries may be available from the Joint Committee on Internal Revenue Taxation.

FEDERAL BUDGET

In addition to the complete *Budget of the United States Government for the Fiscal Year Ending June 30, 1952*, which is more than 1,000 pages long, and the usual briefer volume containing the budget message of the President and summary statements, the Bureau of the Budget has again prepared a popular summary entitled *The Federal Budget in Brief*. This attractively printed 44 page brochure contains a brief textual description of the principal programs, a few summary statistics, and 21 charts. It is for sale by the Superintendent of Documents for 20 cents. The Bureau of the Budget has available for distribution on request four reprints of special analyses included in the 1952 budget document. These are: "Investment, Operating, and Other Budget Expenditures"; "Federal Activities in Civil Public Works and Other Construction"; "Federal Aid to State and Local Governments"; and "Federal Credit Programs." The analysis of Federal credit programs is a new one published this year for the first time.

Accounts and Taxes. A partial record of the first Kentucky Institute on Accounting and Tax Practioners' Forum, University of Kentucky. Lexington: University of Kentucky, 1950. (Bureau of Business Research Bulletin 21). Pp. iv + 97.

This publication includes papers presented at an institute organized by the College of Commerce, University of Kentucky, and the Kentucky Society of Certified Public Accountants with the cooperation of the Kentucky State Bar Association and the Louisville chapter of the National Association of Cost Accountants. The papers are as follows: "Procedure and Practice before the Treasury Department," by Aubrey R. Marrs; "Planning Estates for Federal Taxation," by William J. Casey; "A Trust Officer's View of Estate Planning," by Bart A. Brown; "What the Banker Expects in Reports by Certified Public Accountants,"

by George S. Allen; "The Accountant's Service to Small Business," by Charles J. Gaa; "The Use of Accounting Data in Economic Analysis," by W. A. Paton; and "Current Accounting Problems," by Carman G. Blough.

Retail Sales in Alabama. By G. B. HOLLINGSWORTH, JR. University, Alabama: Bureau of Business Research, School of Commerce and Business Administration, University of Alabama, 1950. Pp. 23. 50 cents.

This report presents data on retail sales in Alabama for the three years 1947-49, drawn from sales tax returns submitted to the State Department of Revenue. Included are tabulations of net taxable sales and deductions, total taxable sales by counties, sales by types of business for the State as a whole, and sales by types of business in twelve selected counties. The data are not analyzed, but the author includes a useful introductory statement on nature of the data, definitions, and limitations. The study should be useful in market studies and in estimating the revenue effects of various sales tax exemptions.

Kentucky Taxes Affecting Life Insurance. By CHARLES R. LOCKYER. Lexington, Kentucky: University of Kentucky, 1950. (Bureau of Business Research Bulletin 22). Pp. vi + 68.

This study examines Kentucky State taxation of life insurance premiums, taxation of life insurance proceeds under death taxes, and local taxation of life insurance business in Kentucky. Kentucky State and local taxes are compared with those in other states. A useful appendix contains a brief summary of the provisions of municipal and state life insurance taxes in the various states. In 1948 municipal taxes were imposed mainly by cities in Alabama, Florida, Georgia, Kentucky, Louisiana, and South Carolina.

1951 Guidebook to New York State Income Taxes on Individuals and Fiduciaries. By SAMUEL M. MONATT. Chicago: Commerce Clearing House, Inc., 1951. Pp. 263 (paper covers). $3.

This volume is a detailed guide to the New York State income tax, annotated with references to the law and regulations. It contains checklists, specimen filled-in returns, illustrative computations, and explanations. Useful features include the comparison of State and Federal tax treatment of transactions and cross references to Federal law and regulations.

Taxation Statistics, 1950. By [Canadian] Department of National Revenue, Taxation Division. Ottawa: King's Printer, 1950. Pp. 181. 50 cents.

This fifth annual report includes data on collections of income tax, excess profits tax, and succession duties; and statistics drawn from individual and corporation returns for 1948. An interesting feature not usually found in United States reports is a tabulation of individual returns by occupation. Individual returns are also tabulated by place of residence. Succession duties are analyzed by sex and age of decedent. Corporate data include balance-sheet items, capital expenditures, and a classification of returns by type of owner.

The New York City Tax System. By Chamber of Commerce of the State of New York. New York, 1951. (65 Liberty Street, New York 5, N. Y.) Pp. 11.

This pamphlet contains a brief description of the principal taxes imposed by New York City and summary statistics on general City operating revenues in the year ended June 30, 1950. In that year total general operating revenues amounted to $1,138 million, of which 44 per cent came from the property tax, 12 per cent from sales and use taxes, 8 per cent from other taxes, 23 per cent from State aid, and 4 per cent from Federal aid.

NTA NOTES

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